INDIAN TARIFF BOARD

EVIDENCE

Recorded during the enquiry regarding

GRANT OF PROTECTION

TO THE

CEMENT INDUSTRY

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CALCUTTA GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1925

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Press Communiques.

Issued by the Board during the Enquiry.

No. (1).

(Dated Simla, April 17th, 1924.)

In the Resolution of the Government of India in the Commerce Department, applications for protection on behalf of the following industries have been referred to the Tariff Board:—

* * * * *

Cement.

* * * * *

The Board hope that those firms or persons engaged in the industries enumerated above, who consider that protection should be granted, will, if no representation on their behalf has yet been presented to the Government of India, submit their representations to the Board without delay.

2. It is the intention of the Board to obtain from the applicants full statements of the facts on which they rely in support of their claims, and for this purpose questionnaires have been drawn up specifying the points on which information is required. As soon as replies have been received, arrangements will be made to examine orally representatives of the firms applying for protection and the written and oral evidence taken will then be published. Thereafter all persons who consider that their interests are likely to be affected by the proposals made, or desire either to support or to oppose the claims to protection, will be invited to submit written representations to the Board and to say whether they desire to tender oral evidence in addition.

3. The Board believe that the procedure outlined above will conduce to the public convenience and will facilitate their enquiries. Until the case for protection has been developed and the most important facts have been ascertained, it is difficult for commercial bodies, or other persons interested, to understand exactly what is proposed or to express their views adequately on all aspects of the case. When opinions are invited, they will be asked for by a date so fixed as to allow a sufficient interval after the publication of the evidence for its study and examination. But since the Board's tour programme must be settled some time in advance, it is desirable that those who intend to give oral evidence, or think it likely that they will do so, should send early intimation to the Board.

No. (2).

(*Dated Simla, June 26th, 1924.*)

In their Communiqué dated the 17th April, the Tariff Board outlined the procedure they intended to adopt in dealing with the applications for protection referred to them by the Government of India in Commerce Department Resolution No. 38-T., dated the 10th April. In each case the first stage of the enquiry is to obtain from the manufacturing firms in the industry concerned a full statement of the grounds on which protection is claimed. The second stage is the publication of the evidence, both written and oral, tendered by the applicants for protection, and the third stage is to receive the evidence of all who wish to be heard regarding the claims made, after they have had an opportunity of studying the published evidence.

2. Of the five industries mentioned in the Commerce Department Resolution, the boot and shoe industry is no longer before the Board, since the only firm which had asked for protection withdrew its application, and in two of the industries (printer's ink and magnesium chloride) only a single firm carries on the manufacture. The two most important enquiries, therefore, with which the Board has been charged are paper and cement. The works of the paper manufacturing firms are situated in Bengal, Bombay, the United Provinces, Madras and the Punjab, while the cement firms are scattered over Northern India, in the Punjab, the Central Provinces, Bihar and Orissa, Rajputana, Gwalior and Kathiawar. The Board were anxious to complete the first stage of these enquiries as soon as possible, and it was obvious that, if the oral evidence of each of the manufacturing firms was taken locally, a great deal of time would be taken up in travelling. In that case, the publication of the evidence would have been retarded to such an extent that it would be impossible to complete the enquiries within a reasonable period. On this account the Board decided that all the oral evidence during the first stage of the enquiry should be taken at Simla, the headquarters of the Board. It appeared to them reasonable that the manufacturing firms should conform to a procedure designed to expedite the Board's enquiries, since they themselves must naturally desire the earliest possible decision. In each industry one or two firms were not asked to tender evidence at this stage, either because of their remoteness from Simla, or because they were relatively unimportant.

3. * * * * *

4. The week ending the 28th June was provisionally fixed by the Board for taking the oral evidence of the Cement firms, and this date was communicated to them on the 17th May. Up to the 12th June none of them had replied. On that day the Board asked for immediate information. The net result was that, out of eight firms, one agreed to send its representatives on the 27th June, and

dates have been fixed for three firms between the 2nd and the 7th July. Two are unable to appear before the 10th July and two have been unable to complete their replies to the questionnaire and their oral examination is indefinitely postponed. To several of the firms it appears to be a matter of indifference whether oral evidence is taken on their behalf or not.

5. The Board consider that in justice to themselves and to the industries whose applications have been, or may be, referred to them, the position should be clearly defined. The public expect, and are entitled to do so, that the Board will deal expeditiously with the questions made over to them, but equally both the public and the Board are entitled to expect that manufacturing firms who have asked for protection will co-operate with the Board to that end. When the Board are dealing with several industries simultaneously the arrangements for the various enquiries are interdependent, and any change in the dates fixed for one industry dislocates in the programme fixed for the others. At the present time, owing to the difficulty found in fixing the dates for oral examination of the manufacturing firms, the Board are still unable to fix their tour programme for the rains. They cannot commence to hear the evidence tendered by members of the public regarding any industry, until a reasonable interval after the publication of the evidence of the applicants, and obviously until the dates for oral examination have been settled, the date for publishing the evidence cannot be fixed, even approximately.

6. Manufacturing firms applying for protection have in effect asked for a substantial subsidy at the expense of the tax-payer. It rests with them, therefore, to justify fully the claim put forward in accordance with the general principle accepted by the Government of India and the legislature. This cannot be done effectively unless the written statements submitted to the Board are supplemented by oral evidence on behalf of, at any rate, the principal firms engaged in the industry. If firms who have applied for protection are disinclined to tender oral evidence, the only inference the Board can draw is, that either they are not deeply interested in the grant of protection, or that they are doubtful of their ability to make good their case. In addition, it is incumbent on manufacturing firms, if they regard the grant of protection as an urgent matter, to conform as far as possible to the dates and places fixed by the Board for the examination of witnesses because, unless this is done, the Board's enquiries will be greatly prolonged. If a particular firm is unable to send its representatives for oral examination at the time and place provisionally fixed, and fails—as the paper and cement manufacturing firms failed—to inform the Board of the fact until the eleventh hour, the responsibility for the inevitable delay will rest solely on its own shoulders. If, as a result, the Board find it necessary to recast their programme, they will endeavour to make their arrangements so that only the enquiry into the industry in which the firm is engaged, is affected, and the

inevitable delay does not extend to the enquiries into other industries. Inability on the part of firms to present their case with promptitude, or to co-operate with the Board in the conduct of its enquiries may be of grave prejudice to the interests of the industry concerned.

No. (3).

Published on July 22nd, with the preliminary evidence of the Applicants for Protection.

In a communiqué dated the 17th April 1924, the Tariff Board outlined the procedure they had decided to adopt in their enquiries into the industries referred to them in the Resolution of the Government of India in the Commerce Department No. 38-T. dated the 10th April 1924. The first stage was to obtain the evidence of the applicants for protection, and the second to publish this evidence—whether written or oral—so that all interested might give their opinions after they had had an opportunity of considering the case put forward. The evidence tendered by the applicants for protection in the cement industry (together with four other representations received by the Board) has now been published, and copies may be obtained from the Manager, Central Publication Branch, 8, Hastings Street, Calcutta, price one rupee.

2. Replies to the Board's questionnaire have been received from the following cement manufacturing firms:—

1. The Central Provinces Portland Cement Co., Ltd.
2. The Indian Cement Co., Ltd.
3. The Gwalior Cement Co., Ltd.
4. The Dwarka Cement Co., Ltd.
5. The Bundi Portland Cement Ltd.
6. The Punjab Portland Cement Ltd.
7. The Katni Cement & Industrial Co., Ltd.
8. The Jubbulpore Portland Cement Co., Ltd.
9. The Sone Valley Portland Cement Co., Ltd.

The written statements of Nos. 1 to 8 are now published, together with the oral evidence given by the representatives of Nos. 1 to 4. The oral evidence of the other companies will be taken in the near future, but the Board have decided that the publication of the evidence should not be deferred in order to include it. The case for protection has been sufficiently elaborated in the evidence already taken, and a further delay would seriously retard the completion of the Board's enquiry.

3. The present duty on imported cement is Rs. 9 a ton, being 15 per cent. on a tariff valuation of Rs. 60 a ton. The manufacturing firms have asked that a specific duty of Rs. 25 a ton should now be imposed. If imported cement were admitted duty free, the price at the ports would not, apparently, exceed Rs. 50 a ton, and the proposed duty is therefore approximately equivalent to

an *ad valorem* duty of 50 per cent. The applicants have informed the Board that the principal market for cement in India is at the great ports, that is, primarily at Calcutta and Bombay, and also at Madras, Rangoon and Karachi. The consumption of cement up-country is smaller than in the ports, but except in Burma, where cement is not manufactured at present, the Indian manufacturer is in a better position to hold his own, the advantage he possesses varying according to the distance from the port. The manufacturers anticipate that the proposed duty of Rs. 25 a ton will suffice to retain the whole of the Indian market for Indian cement. It is intended, therefore, to be practically prohibitive.

4. The Board will be glad to receive written representations from all Public Bodies, Associations, firms or persons who desire to be heard regarding the grant of protection to the Cement industry.

Oral evidence will be taken as follows:—

At Calcutta, between the 21st August and the 6th September.

At Bombay, between the 9th and the 30th September.

At Madras, between the 1st and the 14th November.

At Rangoon, between the 19th November and the 2nd December.

It is necessary that those who desire to supplement their written representations by oral evidence should inform the Board with the least possible delay, so that the dates for taking evidence may be definitely fixed. This is particularly important for those who desire to be examined at Calcutta where oral evidence will first be taken. The Board will leave Simla on the 29th July and, after visiting Dehra Dun, Lucknow and Katni, will arrive at Calcutta on the 10th August. The following dates have been fixed by the Board as the latest dates for receiving written representations or requests for taking oral evidence:—

Requests for oral examination at Calcutta	12th August
Submission of written representations by those who desire to be examined orally at Calcutta	19th August.
Requests for oral examination at Bombay	22nd August.
Submission of written representations by those who desire to be examined orally at Bombay	1st September.
All other written representations . .	30th September.

The programme for oral examination at Madras and Rangoon will be arranged later. All requests for oral examinations should be addressed to the Secretary to the Board, No. 1, Council House Street, Calcutta, and should be despatched so as to arrive on or after the 1st August, the date on which the Board's office will open in Calcutta.

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QUESTIONNAIRES.

QUESTIONNAIRE (1) (*a*).

General Questionnaire issued to Applicants for Protection.

I.—INTRODUCTORY.

1. When was the firm which you represent established? Is it a public or private registered Company, or is it an unregistered firm?

2. To what extent is the capital invested in your firm held by Indians? How many Indians are Directors? How many Indians (if any) form part of the superior management?

3. Does your firm manufacture cement only, or does it manufacture also lime or other products for sale?

4. At what date did the factory under the control of your firm commence to manufacture?

5. What is the full capacity of your factory, as at present equipped, for the manufacture of (*a*) cement and (*b*) other products if manufactured for sale?

6. What has been the actual output of the factory, for each year since manufacture commenced, of (*a*) cement and (*b*) other products if manufactured for sale?

7. Where is your factory situated? Do you consider it is advantageously situated in respect of—

(*a*) vicinity to the areas from which your raw materials are drawn.

(*b*) vicinity to the coalfields or other sources of power or fuel;

(*c*) vicinity to an important market;

(*d*) other considerations such as the existence of an abundant labour supply?

What do you consider the most important factors in selecting the site of a cement factory in India?

8. Do you manufacture different varieties of cement? Enumerate the principal varieties, showing on the average of the last five years, the proportion which each kind bears to the total output.

9. Does Portland cement constitute the bulk of your manufacture? Do you usually manufacture to the British or any other standard specification? Do you consider the British specification suitable to Indian conditions? If not, what modifications do you consider desirable?

10. Do you consider that your cement is equal in quality and appearance to imported cement? Does your cement command the same price in competitive markets as imported cement? If not, to what causes do you ascribe the lower price of the Indian product?

II.—RAW MATERIALS.

11. What are the raw materials used in your factory?

12. What are your annual requirements of each of the raw materials—

- (*a*) according to your present rate of output (which should be stated);
- (*b*) according to the rate of output equivalent to the full capacity of the plant?

13. What quantity of each of the raw materials is required for the production of one ton of cement? What is the percentage of wastage:—

- (*a*) before calcining
- (*b*) during calcining
- (*c*) after calcining?

14. What quantity of slurry or dry mixture is required for the production of one ton of clinker?

15. What quantity of clinker is required to produce one ton of finished cement?

16. From what area or areas does the factory draw its main supplies of the raw materials, and at what distance from the factory are they situated? If possible, a map should be given showing the site of the factory and the areas from which supplies are drawn.

17. How is the raw material collected and by what means is it transported from the quarry to the factory? If more than one means of transportation is employed, please specify the distance covered by each such means.

18. What royalty (if any) per ton for raw materials is payable to Government or to private persons?

19. Please give the cost per ton delivered at the factory of the raw material (or materials), for each year since the factory was established, divided under the following heads:—

- (1) Royalty (if any)
- (2) Labour employed on extraction and collection
- (3) Freight from quarry to factory by
    - road
    - rail
    - river
    - sea
    - other.
- (4) Miscellaneous charges.

20. What are the terms of your concession (or concessions) for the principal raw material? (A copy of the lease or other document in which the concession is embodied should be given.) Do you consider these terms favourable? If not, in what respect do you consider them unfavourable?

21. Have you found the supply of the raw material constant in respect of quality, or have you noticed, or do you expect, any deterioration? In the latter case, the causes to which the deterioration is ascribable should be explained.

22. Do you find that your raw materials are deficient in particular respects either as a general rule or on particular occasions? If so, what measures do you take to correct such deficiencies.

23. How many years supply of your principal raw materials have you secured? Do you anticipate that, as time goes on, the cost of these raw materials will increase, either—

(*a*) because they have to be won from a greater depth, or

(*b*) because new sources of supply will have to be tapped at a greater distance from the factory?

24. Have you found it necessary to draw supplies from new areas since the factory was established?

25. Have you experienced any difficulty in obtaining leases or concessions for the collection of your raw materials? If so, what was the nature of the difficulty?

26. Do you import any of your raw materials? If you do, kindly state whether you import them because they are not available in India at all, or are not available in the required quantity and quality and at reasonable prices.

27. Do you get any special freight rate by sea, river or rail for your raw materials? Do you consider you are at any disadvantage in this respect?

III.—LABOUR.

A.—Quarry labour.

28. How many labourers are employed in extracting and collecting your raw materials? Please give for each year since the factory was established:—

(*a*) the total wages bill for such labour, and

(*b*) the average wages per man.

The increases in the rates of wages (if any) during the interval should be stated, and the dates when they were given.

29. Have you any difficulty in obtaining such labour? If so, what?

30. Is the labour indigenous, or has it to be imported from other parts of India? Whether the one or the other, is it always available in sufficient quantities?

31. Does this labour require any special training? If so, is it readily trained?

B.—Factory labour.

32. Do the processes of manufacture require much expert supervision involving the employment of skilled labour imported from abroad?

33. What number of imported labourers are employed at present, and what would be the number required if the factory were worked to full capacity?

34. What progress has been made since the factory was established in the substitution of Indian for imported labour? Is it anticipated that eventually the employment of imported labour will be unnecessary? What facilities are given to Indian workmen to acquire training in skilled work or for training apprentices?

35. How do the rates of wages paid to imported workmen compare with the rates paid for similar work in other countries?

36. What is the total number of Indian workmen employed and what are the average rates of wages of the different classes?

37. Please give for each year since the factory was established:—

(*a*) the total wages bill for Indian factory labour,
(*b*) the average wages per man in the different classes.

The increases in the rates of wages between the two years should be stated, and the dates when they were given.

38. Is the Indian labour force sufficient? Is it drawn from the vicinity of the factory or from other parts of India?

39. Has it been found that the Indian labourer improves with training? How does his efficiency compare with that of workmen in Western countries employed on similar work?

40. What arrangements have you made for housing your labour and for promoting its welfare in other directions?

IV.—POWER (INCLUDING FUEL).

41. Is the power used in the factory derived from electricity, or steam, or from some other source?

42. If electric power is used, from what source is it obtained and what is the cost per unit? How does the cost compare with the rates obtained elsewhere in India and in other countries?

43. If steam power is used, is coal the fuel employed? If not, what is the fuel? Is the latter available in sufficient quantities?

44. What is the total quantity of fuel required per unit of output, whether for power production or for other purposes?

If you purchase electric current from an outside supply, please give also the number of units required per unit of output in addition to the fuel used.

45. From what distance is the fuel brought, and what is the free-on-truck price in the case of coal, and in the case of other fuel at the source of supply? And what is the cost of transport per ton in each case? If fuel is purchased locally, what is the price per ton delivered at the factory?

46. Do you own or control your own sources of supply of fuel? If so, how many years supply have you of the kind of fuel used by you?

47. If your fuel is wood, have you obtained any concession from the Government or other person? What is the royalty payable, and what are the conditions of the concession? (Supply a copy of your concession).

V.—MARKET.

48. What is the total Indian production of cement so far as it can be ascertained or estimated for each year since the factory was established?

49. What do you estimate is the total Indian demand for cement, Portland and other?

50. Is it likely that the Indian demand will substantially increase in the near future? If so, what are the reasons for your belief?

51. In what parts of India are your principal markets situated, and what are the distances which separate them from the factory?

52. Are there any markets in India in which, owing to their distance from the ports, you are more easily able to compete against the foreign manufacturer? If so, please state which these markets are, and the approximate demand in each.

53. Do you consider that the export of cement from India to any foreign countries is probable? If so, to what countries and what kinds of cement? Can you form any estimate of the quantities which India might eventually be able to export?

54. Is the cement manufactured by you purchased by (*a*) Government (*b*) Railways and (*c*) Public bodies, such as Municipalities and Port Trusts? If so, please state the extent of their purchases and the prices paid during—

(*i*) the war period

(*ii*) each of the last five years.

Were the prices received by you during the war the market prices then prevailing?

VI.—FOREIGN COMPETITION.

55. Which are the foreign countries from which competition in the Indian markets is keenest?

56. Is the competition keener in some kinds or qualities of cement than in others? If so, please specify these kinds and qualities.

57. Please state in respect of those kinds of cement which form the bulk of your output—

(*i*) The prices at which imported cement has entered the country and been sold during:—

(*a*) 1912, 1913 and 1914

(*b*) 1917 and 1918

(*c*) 1921-22; 1922-23 and 1923-24.

(*ii*) The prices realised by you for the same kinds.

If possible the f.o.b. price (in sterling) of imported cement should be given and the following items shown separately:—

Freight.

Insurance and trade charges.

Customs duty.

Landing charges.

If this is not possible, then please state the c. i. f. price *plus* Customs duty and landing charges.

58. From what sources is information obtainable as to the prices at which imported cement enters the country? How far do you consider the information obtained from these sources reliable?

59. How far are the quotations in the Trade Journals in accord with the prices at which transactions actually take place? To what extent do such quotations form the basis of the terms on which you yourself do business? Are the prices at which cement is actually exported appreciably below the home prices quoted in foreign Trade Journals? If so, by what percentage approximately should the quoted price be reduced?

60. Have you any reason to suppose that prices at which foreign producers sell for export to India are unremunerative, *i.e.*, below the cost of production, or leaving only a small margin of profit to the producer? If so, please state fully your reasons and the evidence on which you rely.

61. In which of the Indian markets is foreign competition keenest?

62. To what causes do you attribute the low prices at which foreign cement has entered India since the war? How far do you consider these causes permanent or temporary?

63. Please compare the freight you have to pay to reach your markets in India with the total freights—sea and rail—payable on imports to the same markets.

64. Compare the Railway freight paid by importers from the ports to selected up-country markets and the Railway freights paid on the produce of your factory to the same markets.

N.B.—What is desired is concrete instances giving the name of the port, the names of the up-country station, the distances, rates per maund per mile, etc.

65. Have any instances recently come to your notice in which Continental cement has been re-exported from the United Kingdom as British manufactures? If so, please give the evidence on which you rely, and state whether you ascribe the fact to depreciated exchanges or to other causes.

66. Do you consider that, as compared with the foreign manufacturer, the Indian manufacturer is at a disadvantage in all or any of the following points—

(*a*) the cost of plant and machinery
(*b*) the cost of expert labour
(*c*) the cost or efficiency of ordinary labour
(*d*) the collection and transport of raw materials
(*e*) the cost of raw materials and consumable stores
(*f*) freights on finished goods
(*g*) the maintenance of stocks of spare parts
(*h*) customs duty on imported materials
(*i*) the raising of capital.

Where possible, definite figures should be given, *e.g.*, comparing the cost of plant and machinery erected in India with the corresponding cost in Western countries or comparing the wages of imported expert workmen in India with the wages they would draw in their own countries. If there are "seasonal" difficulties in connection with the collection and transport of the raw materials, these should be explained.

67. Which of the disadvantages mentioned in your answer to question 66 do you regard as permanent and which as temporary? For what period in your opinion are the temporary disadvantages likely to operate?

68. Do you consider that the Indian manufacturer of cement is at a disadvantage owing to:—

(*a*) the distance between the sources of fuel and the areas where the raw materials are found, and
(*b*) the distance between the factory and the principal markets?

VII.—EQUIPMENT.

69. Do you consider that your factory is sufficiently large as an economic unit of production to ensure economy? What in your opinion is the smallest unit of production which can be operated economically under present-day conditions?

70. Does the manufacture of cement require the use of elaborate and expensive machinery?

71. What percentage of your total capital outlay has been incurred on plant and machinery?

72. Give a brief description of your plant and machinery, stating the number and makes of the principal machines operated, and the dates on which they were first brought into use.

73. Do you consider your machinery and other equipment sufficiently up-to-date and efficient to enable you to compete successfully against the foreign manufacturer?

74. Is it a fact that during, and since, the war many improvements have been effected in cement making processes and machinery?

75. Have you, since 1916, adopted any new processes of manufacture, or have you installed new plant and machinery in replacement of, or in addition to, the old plant? If so, give a brief description of them and state whether the results have fulfilled the expectations entertained.

76. Do you contemplate either:—

(*a*) any important replacement of the existing plant in your factory, or

(*b*) any extension of the plant by the addition of new machinery? If so, please give particulars.

77. What parts of the machinery, if any, are made in India?

VIII.—CAPITAL ACCOUNT.

78. What is the block value of your property, as it stood in your books at the end of the last complete year for which figures are available, under the following heads:—

(*a*) Leases and concessions.
(*b*) Lands.
(*c*) Buildings.
(*d*) Plant and Machinery.
(*e*) Other miscellaneous assets.

79. Do the figures given in answer to question 78 represent the actual cost of the various assets, or their value after depreciation has been written off? In the latter case, please state the total amount written off for depreciation since manufacture commenced, and in the former case the total of the depreciation fund (if any) which has been accumulated.

80. Apart from any question of an increase in the replacement cost of plant and machinery due to a general rise in the price level, are the sums actually set aside for depreciation since manufacture commenced equal to, greater than, or less than, the sums which ought to have been set aside according to the rates of depreciation which you consider suitable? (See Question 98.)

81. What do you estimate would be the present-day cost under the heads (*a*) buildings, and (*b*) plant and machinery, of erecting a factory having the same output as your present factory? How does the figure compare with the block value of your present factory under the same heads? Would the operating cost of a new factory established now be greater or smaller than yours?

82. Give brief particulars of the sums spent on the purchase of plant and machinery in each of the years 1917 to 1924, and the rate of exchange at which funds were remitted.

83. What is the total (*a*) authorised, (*b*) subscribed, (*c*) paid up capital of the Company? How is it divided between Preference, Ordinary and Deferred shares?

84. At what rate of interest is the dividend payable on the Preference shares? Are these shares entitled to cumulative dividends? If so, state the dates on which they were first entitled to rank for dividends and whether any dividends are in arrears.

85. Under what conditions do the Deferred shares participate in the profits of the Company?

86. Please prepare a statement showing for each year since the establishment of the Company:—

(*a*) the amount of the paid up share capital (Preference, Ordinary and Deferred) ranking for dividend,

(*b*) the actual amounts distributed as dividends on each class of capital, and

(*c*) the percentage on the paid up share capital of each class which the dividend represented.

87. What is the average rate of dividend on the Ordinary shares for the full period?

88. What is the amount of the debenture loans (if any) raised by the Company? At what dates were they issued, and what is the rate of interest payable? If any period has been fixed for the redemption of the debenture loan, it should be stated. Similarly, if a debenture sinking fund has been established, the annual rate of contribution should be given.

89. What is the amount of the Reserve Fund (if any) created by the Company? Has this amount been accumulated from surplus profits, or from other sources, *e.g.*, by the issue of shares at a premium?

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90. What additional capital (if any) would it be necessary to raise in order to carry out any scheme of replacement or extension of plant which the Company contemplate?

IX.—COST OF PRODUCTION.

The cost of production falls under two heads:—

(*a*) Works costs, and

(*b*) Overhead Charges.

The latter head—overhead charges—includes:—

(*i*) Interest on working capital.

(*ii*) Depreciation.

(*iii*) Head office expenses and Agents' commission.

The head 'Works Cost' covers all other expenditure on the production of cement. The dividends on share capital are not included in the cost of production, nor is the interest on debenture and other loans in so far as the sums so raised have been devoted to fixed capital expenditure.

(*a*) WORKS COSTS.

91. Please fill up the two Forms annexed to the questionnaire regarding Works Costs.

The following explanations may be useful:—

(*a*) The Board are anxious to have as full information as possible regarding the cost of production, but they recognise the difficulty which manufacturers may feel in disclosing to the public the details of their practice and their works costs. Great stress was laid on the importance of publicity in paragraph 303 of the Fiscal Commission's Report, and the Board also have explained the views they hold in paragraph 41 of their Third Report on the Grant of Protection to the Steel Industry. It rests with the manufacturers themselves to decide what information can be given publicly, and nothing will be published which the witness desires to be treated as confidential. At the same time, the Board cannot base their recommendations merely on confidential information. The publication of the details of the works costs of each firm may not be essential because the Board may be able by comparison of the various figures submitted to arrive at a standard or average figure for each item. But it is very desirable that the total of the works costs should be disclosed in all cases.

(*b*) In Form I the actual expenditure of the year under the various heads should be shown, whereas in Form II it is the cost per unit of output that is desired.

(*c*) Figures have been asked for for the first year of production and for 1921-22, 1922-23 and 1923-24. If, however, the costs during the first year of manufacture are not regarded as typical, the figures for the next year may be given. For the post-war period, the figures of the last three complete years for which figures are available should be taken.

(*d*) The figure given against raw materials should be the cost delivered at the factory, and will include the cost of all labour employed in collection or transport. The cost of such labour therefore is necessarily excluded from the item 'Labour' in the forms.

(*e*) If at any stage of the process of manufacture materials are recovered and can be used again, the credits taken for such recoveries should be entered in the forms, and the manner in which such credits are taken explained.

(*f*) In both Forms, Power and Fuel are shown as one item, but it is preferable (if possible) that they should be shown separately.

92. Was the works cost increased in any of the years for which figures have been given owing to the fact that the factory was working at less than its full capacity? If so, which were the items principally affected? To what extent would they probably have been reduced if a full output had been obtained?

93. Do you regard the works cost of the last year for which figures have been given as abnormally high for any other reason? If possible, furnish an estimate of the works cost for some future year on the assumption that—

(*a*) conditions are normal,

(*b*) an output is obtained equivalent to the full capacity of the plant.

94. Have you adopted a system of cost accounting? If so, will you place before the Board, for examination and return, your cost sheets for the last complete year for which they have been prepared?

95. Are you in a position to furnish the Board with information as to the works costs of cement in any competing country for any year since the war?

(*b*) OVERHEAD CHARGES.

(*i*) *Depreciation.*

96. What are the rates of depreciation allowed by the Income-tax authorities? Do you consider that, in calculating the cost of production of cement, these rates of depreciation are suitable? If not, what rates do you suggest, and why?

97. What is the sum required annually for depreciation at Income-tax rates on the total block account—

(*a*) if the assets are valued at cost,

(*b*) if the assets are taken at their value after, deducting all depreciation written off up-to-date?

The depreciation should be shown separately for:—

Buildings.
Plant and machinery in continuous operation.
Other plant and machinery.
Other assets.

If you consider that rates other than the Income-tax rates should be adopted, please calculate the sums required annually for depreciation at these rates also.

98. Taking the figures given by you in answer to question 81 as the present-day cost of the buildings and machinery required for a factory having the same output as your present factory, calculate the sum required annually for depreciation at Income-tax rates and at the rates you consider should be adopted if you think the Income-tax rates are unsuitable.

99. Taking the total amount of depreciation to be written off according to the various methods given in questions 97 and 98, what is the incidence per ton of cement:—

- (*a*) according to the present output of the factory (which should be stated),
- (*b*) according to the output equivalent to the full capacity of the plant?

(*ii*) *Working Capital.*

100. What is the working capital which the Company requires—

- (*i*) according to its present output, and
- (*ii*) according to the output equivalent to its full capacity?

101. Is the Company able to provide all the working capital it requires from share and debenture capital, or is it necessary to borrow additional capital for this purpose?

102. If additional working capital has to be borrowed, what is the amount borrowed and the rate of interest payable?

103. Compare the working capital with the cost of one month's output (works cost only, excluding overhead charges).

104. What is the average value of the stocks of finished goods held by the Company? What period normally elapses between production and payment?

105. Do the Company find it necessary to hold large stocks of coal or raw materials? If so, the average value of the stocks held should be stated.

(*iii*) *Agents' Commission and Head Office expenses.*

106. Has the Company a head office other than the office of the local management? Is it under the control of a firm of Managing Agents?

107. If the answer to (*a*) is in the affirmative, state:—

- (*i*) the annual amount of the head office expenses,
- (*ii*) the Agents' commission.

108. How is the amount of the Agents' commission determined?

109. What is the cost of:—

- (*i*) Head office expenses;
- (*ii*) Agents' commission.

per ton of cement according to:—

- (*i*) the present output;
- (*ii*) the output equivalent to the full capacity of the plant?

X.—MANUFACTURER'S PROFITS.

110. What rate of dividend do you consider a fair return on Ordinary and Deferred shares?

111. If your Company contemplated the establishment of a new cement factory or the purchase of new machinery for the existing factory—whether by the way of extension or replacement—what rates of interest do you consider it would be necessary to offer on (*a*) Preference shares and (*b*) Debentures in order to attract capital, assuming that the profits made in the industry showed a substantial margin after providing the interest on the existing shares or debentures?

112. If it were decided to issue Ordinary shares, what do you consider would be the minimum probable return which would be likely to attract investors?

113. What is the incidence per ton of cement of:—

(*a*) the fair return on the Ordinary and Deferred shares as given in answer to question 110,

(*b*) the full dividends on the paid up Preference shares,

(*c*) the full interest on the debentures in so far as the proceeds of the debentures have been devoted to fixed capital expenditure and not used as working capital?

N.B.—The figure should be given both on the present rate of output and the output equivalent to the full capacity of the plant.

XI.—CLAIM FOR PROTECTION.

114. In paragraph 97 of their Report, the Fiscal Commission laid down three conditions which in ordinary cases ought to be satisfied by industries claiming protection. Do you consider that those conditions are satisfied in the case of the cement industry? And in particular:—

A. Do you claim that the industry possesses natural advantages, such as an abundant supply of raw materials, cheap power, a sufficient supply of labour or a large home market?

B. Do you claim that, without the help of protection, the industry is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country?

C. Do you claim that the industry will eventually be able to face word competition without protection?

These conditions have been approved by the Government of India and by the Legislative Assembly, and it is therefore of great importance to ascertain whether they are satisfied. If you consider that the cement industry fulfils these conditions, the reasons for your opinion should be fully explained.

115. Do you claim that the cement industry satisfies either, or both, of the conditions mentioned in paragraph 98 of the Fiscal Commission's Report, *viz.*:—

(*a*) That the industry is one in which the advantages of large scale production can be achieved, and that increasing output would mean increasing economy of production?

(b) That it is probable that in course of time the whole needs of the country could be supplied by the home production?

116. Do you consider that the cement industry is of importance on national grounds and therefore deserves protection apart from economic considerations?

117. Do you consider that there are any features of the industry which make it peculiarly suitable to Indian economic conditions?

118. Do you claim that protective duties should be imposed on cement of all kinds or only on such kinds as compete with Indian products? In the latter case, please specify clearly the kinds of cement on which you desire that protective duties should be imposed. Can these kinds be readily distinguished for Customs purposes from other kinds?

119. What special measures (if any) do you suggest to safeguard the cement industry against under-selling by reason of:—

(a) depreciated exchanges

(b) subsidized freights

(c) any cause other than a reduction in the foreign cost?

120. What is the amount of protection the industry receives at present owing to—

(a) the existing Customs duties,

(b) transport charges between the country of production and the port of entry, *i.e.*, freight, insurance, trade charges and landing charges?

121. What is the amount of the protection which you consider necessary?

N.B.—The reasons for proposing the particular rate recommended should be explained.

122. Is it a fact that the productive capacity of the Indian cement factories exceeds the total consumption of the country? If so, how in your opinion will protection, if given, benefit the industry?

FORM I.

Statement showing the total expenditure incurred on the production of cement during certain years.

(See question 91.)

	First year of production.	1921-22.	1922-23.	1923-24.
(1) Raw materials				
(2) Factory labour				
(3) Power and fuel				
(4) Ordinary current repairs and maintenance of buildings, plant and machinery.				
(5) General services, supervision and local office charges.				
(6) Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.				
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.				
TOTAL .				
Total production of cement for the year.				

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FORM II.

Statement showing the works cost per ton of cement.

(See question 91.)

	First year of production.	1921-22.	1922-23.	1923-24.
(1) Materials				
(2) Factory labour				
(3) Power and fuel				
(4) Ordinary current repairs, and maintenance of buildings, plant and machinery.				
(5) General services, supervision and local office charges.				
(6) Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.				
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.				
TOTAL .				
Credit for materials recovered (if any) .				
Nett total .				

QUESTIONNAIRE (1) (*b*).

Further information required from applicants for protection.

(*Letter, dated* $\frac{\text{22nd}}{\text{24th}}$ *November 1924.*)*

I am directed to address you in regard to further information which is required by the Board in connection with their enquiry into the cement industry.

2.† I am to invite a reference to the statements sent with your letter, dated the 9th October. The object the Board had in mind when they asked for the information was to ascertain the quantity of cement consumed in the up-country markets where the railway freight on imported cement acts as a natural protection, and the quantity consumed at or near the ports, or in areas which can only be reached through the ports (*e.g.*, Eastern Bengal and Assam) where the competition is most severe. The figures you have supplied require a little elucidation and I am to ask that the following points may be cleared up:—

(1) May the figures you have given for Bengal and Assam be taken as representing consignments to stations where the competition of foreign cement is severe?

(2) What quantities, if any, went to stations on the East Indian and Bengal Nagpur lines, more than 50 miles from Calcutta, *e.g.*, stations in the coalfields?

(3) What were the total consignments to Calcutta in each year?

(4) Do the figures for Bombay (excluding the quantities supplied to the Development Department) include any consignments to stations on the Great Indian Peninsula Railway which are more than 50 miles from Bombay? If so, the total consignments to such stations should be given.

(5) Please show separately the quantities consigned to (*a*) Gujerat, (*b*) Sind, and under the latter sub-head the consignments to Karachi should be given.

2.‡ I am to invite a reference to the confidential statement submitted by you in answer to Question No. 51, showing the quantities of cement railed to various stations. The Board would find it convenient if you could supply the same information for each of the three calendar years 1921-22, 1922-23 and 1923-24, so that it may be brought into line with the information supplied by other companies. I am to assure you again that this information will be treated as confidential.

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* NOTE.—The replies of each Company to the Board's questions regarding quantities of cement despatched to different places have not been printed. An undertaking was given to the Bundi Cement Company, Ltd., that their figures for despatches would not be published and it did not appear to the Board to be fair to publish the figures of the other Companies and not those of the Bundi Cement Company.

† To Katni Cement and Industrial Company, Limited, and Jubbulpore Portland Cement Company, Limited.

‡ To the Bundi Cement Company, Limited.

2.* I am to request that you will furnish the Board with the figures showing the quantities of cement despatched to various destinations in each of the years 1921-22, 1922-23 and 1923-24, in the following form:—

(*a*) to Bombay,

(*b*) to Karachi,

(*c*) to each station separately to which no less than 5 per cent. of the total despatches for the year were sent,

(*d*) to all other stations in a single entry.

3. The Board have noticed in examining the evidence given by the various Companies that the cost of power and fuel given for the year 1923-24 in Form II is often a great deal higher than the cost *plus* freight of coal as given in the answers to section IV (Power including fuel) of the questionnaire. It is presumed that the difference may be accounted for by any, or all, of the following reasons:—

(1) The coal used in 1922-23 may have been purchased at prices substantially above the current prices for that year.

(2) The coal consumption may have been abnormally high, owing to a low output of cement, or to the coal having been of bad quality.

(3) The figures for power and fuel may represent the cost of the coal purchased and transported during that year and not the quantity consumed.

In so far as these causes account for the difference, the Board do not require further information. They are anxious to ascertain, however, whether, in the cost shown in Form II for power and fuel for the year 1923-24, any expenditure has been included other than cost of coal and the freight thereon to the works. If this is the case, I am to request that the nature of such expenditure may be indicated and the amount stated.

4. I am to request that you will supply for—

(1) the first six months of 1924-25 and

(2) the first six months of 1923-24 (if your factory was operating then), the following figures:—

  (*a*) the total output of your factory, and

  (*b*) the total despatches of cement, arranged by destination as in the tables already supplied by you.

5. I am to say that the Board desire once more to invite your attention to the question of packing cement in barrels. The Board

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* To all other cement manufacturing companies.

have received many general statements as to the excessive cost of packing in barrels, but, so far, no Company has given them even an estimate of what the cost would be. The matter is one to which the Board will have to refer in their Report, and in view of the importance which some consumers attach to the method of packing, it is desirable that the facts should be made clear. The Board would be reluctant to come to the conclusion that none of the Indian Cement Companies had thought it worth while to ascertain definitely what the cost of packing cement in barrels would be, and they think it desirable that the Companies should have another opportunity of conveying to the Board any information they possess on this point.

6. In conclusion, I am to say that the Board will move to Calcutta (No. 1, Council House Street) about the 25th instant, and I am to request that your reply to this letter may be sent there at an early date after the 1st December.

(2) Local Governments.

(*a*) GENERAL.

(*Letter, dated the 10th June 1924.*)

I am directed to invite a reference to the Resolution of the Government of India in the Commerce Department, No. 38-T., dated the 10th April, remitting to the Tariff Board for enquiry the case for the protection of the Cement industry.

2. The Board are anxious to collect, as early as possible, all available information regarding the condition of the cement industry in and the prospect of its future development. I am accordingly to request that, with the permission of the Government of , the Board may be furnished with a note on the following points:—

(1) The number and existing condition of the Cement factories in ;

(2) The prospect of the establishment of additional factories;

(3) The concessions, if any, which the Local Government have granted to the owners and managers of the factories in the matter of—

  (i) land,

  (ii) exploitation of raw materials and

  (iii) utilization of fuel.

(4) The royalty, if any, imposed by the Local Government;

(5) The natural advantages possessed by the Province for the future establishment of Cement factories;

(6) The estimated demand for cement for use in irrigation and other public works for the next few years.

3. The Board would be glad to receive your reply to this letter by the 15th July, if possible.

(*b*) SPECIAL (REGARDING CONSUMPTION, QUALITY, ETC., OF CEMENT IN INDIA.)

(*Letter No. 679, dated 28th July 1924, to all Local Governments and the Chief Commissioner of Delhi.*)

I am directed to enclose a copy of the evidence of the applicants for protection recorded by the Tariff Board during their enquiry into the cement industry, and to ask for the assistance of the Government of   in examining certain aspects of the case which requires careful investigation.

2. The difficulties under which the cement companies are labouring to-day are admittedly due in part to over-production in India. The various cement factories in existence have an aggregate capacity of over 500,000 tons a year, whereas the total Indian consumption in 1923-24 was about 340,000 tons. Some of the companies anticipate that consumption will increase rapidly, and will in a year or two suffice to keep all the factories fully employed. In support of their belief they point out that the consumption in 1909-10 was only 100,000 tons, and that in the last fifteen years it has increased by 240 per cent.

3. The point which the Tariff Board are anxious to investigate is how far the increase in consumption depends on the continuance of a relatively low selling price, and how the consumption would be affected if the price were to increase substantially. It is on this aspect of the case that they would be glad to have the opinion of the Government of   . The use of cement for public works must often be regulated by its cost as compared with other materials, and the question to what extent it is advisable to make use of it must frequently come up for decision by the engineering officers of Government. In particular it has been suggested by the companies that for many purposes cement might be used where lime has been used hitherto and in that case a considerable increase in consumption might be anticipated.

4. It is claimed by the cement companies that the quality of the cement they manufacture is in all respects equal to that of the cement imported from Europe. They state, however, that some users continue to buy imported cement even though the price is much higher, and they ascribe this practice largely to prejudice, but also the fact that the Indian companies supply cement in bags and not in barrels. European cement has, of course, been subjected to one test which cannot yet be applied to Indian cement, for it has proved its lasting qualities in buildings constructed many years ago. A number of years must elapse before Indian cement can be fully tested in this way. But there are other tests available, and it is important to the Board to ascertain the opinion of large consumers of cement, both as to the quality of the Indian product, and as to the advantages of one form of packing rather than another.

5. The points on which the Board would be glad to have the opinion of the Government of and of their technical advisers may be summarised as follows:—

(1) Is it likely that, if the price of cement remains at about its present level, there will be a substantial increase in the consumption of cement for the construction of public works in the of

(2) What percentages of increase in the present price of cement would be likely to have the effect of—

(*a*) retarding the growth of consumption,

(*b*) stopping the growth of consumption altogether,

(*c*) producing an actual decrease in consumption?

(3) Can cement at its present price level be used economically for many purposes to replace lime? If not, at what price would cement begin seriously to compete with lime?

(4) Has Indian cement been used for public works in the of , and, if so, has its quality been found satisfactory and equal to that of cement imported from Europe?

(5) Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels and is it likely that on this ground the preference might be given to imported cement even if the price were higher?

It is possible that the Government of have recently had occasion to examine the third point in connection with projects for important public works. If so, the Board would be glad to have a note on the investigations made and the conclusions arrived at in some detail.

(3) Railways.

(*a*) GENERAL.

(*Letter No. 743, dated 22nd August 1924, addressed to all Railways.*)

I am directed to enclose a copy of the evidence of the applications for protection recorded by the Tariff Board in the course of its enquiry into the cement industry.

2. There are certain aspects of the case on which the opinion of the Indian Railway Administrations would be of special value. The difficulties under which the cement companies are labouring to-day are admittedly due in part to over-production in India. The various cement factories in existence have an aggregate capacity of over 500,000 tons a year, whereas the total Indian consumption in 1923-24 was about 340,000 tons. Some of the companies anticipate that consumption will increase rapidly, and will in a year or two suffice to keep all the factories fully employed. In support of their belief they point out that the consumption in 1909-10 was

only 100,000 tons, and that in the last fifteen years it has increased by 240 per cent.

3. The point which the Tariff Board are anxious to investigate is how far the increase in consumption depends on the continuance of a relatively low selling price, and how the consumption would be affected if the price were to increase substantially. The use of cement in engineering works must often be regulated by its cost as compared with other materials, and the question to what extent it is advisable to make use of it must frequently come up for consideration by Railway Administrations. In particular it has been suggested by the cement companies that for many purposes cement might be used where lime has been used hitherto and in that case a considerable increase in consumption might be anticipated.

4. It is claimed by the cement companies that the quality of the cement they manufacture is in all respects equal to that of the cement imported from Europe. They state, however, that some users continue to buy imported cement even though the price is much higher, and they ascribe this practice largely to prejudice, but also to the fact that the Indian companies supply cement in bags and not in barrels. European cement has of course been subjected to one test which cannot yet be applied to Indian cement, for it has proved its lasting qualities in buildings constructed many years ago. A number of years must elapse before Indian cement can be fully tested in this way. But there are other tests available, and it is important to the Board to ascertain the opinion of large consumers of cement, both as to the quality of the Indian cement product, and as to the advantages of one form of packing rather than another.

5. One of the difficulties under which most of the cement companies labour is that their works are situated at a great distance both from the coalfields and from the great ports of Calcutta, Bombay and Madras where the principal market for cement is to be found at present. The result is that the industry has to bear heavy freight charges both for the conveyance of coal to the works and for the transport of cement to the ports. Thus, for example, the freight on cement from the works of the Central Provinces Cement Company at Kymore is Rs. 11 a ton to Calcutta and Rs. 15-8 to Bombay, while the freight on Bengal coal to the works is Rs. 8-5 a ton. Similarly the freight on cement from the works of the Bundi Portland Cement Company at Lakheri to Bombay is Rs. 13-8 a ton, while the freight on Bengal coal to the works is about Rs. 12 a ton. It would be of great assistance to the industry if the freight rates both on coal and cement could be reduced, and the Board would be glad to know whether any measures can be taken to secure this result on the railway.

6. The points on which the Board would be glad to have your opinion may be summarised as follows:—

(1) Is it likely that, if the price of cement remains at about its present level, there will be a substantial increase in the consumption of cement for railway purposes.

(2) What percentages of increase in the present price of cement would be likely to have the effect of

(*a*) retarding the growth of consumption;

(*b*) stopping the growth of consumption altogether;

(*c*) producing an actual decrease in consumption?

(3) Can cement at its present price level be used economically for many purposes to replace lime? If not, at what price would cement begin seriously to compete with lime?

(4) Is the bulk of the cement used on the railway made in India or imported? In the latter case, please state the reasons on account of which preference is given to the imported article.

(5) Has Indian cement been used on the railway and, if so, has its quality been found satisfactory and equal to that of cement imported from Europe?

(6) Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels, and is it likely that on this ground the preference would be given to imported cement even if the price were higher?

(7) Can any measures be taken to reduce the freight rates on (*a*) cement, (*b*) coal on the railway.

6. The Board would be glad to receive a written expression of your opinion on the points enumerated in the last paragraph, and any comments you desire to offer on the claim to protection put forward by the cement companies will be welcomed by the Board.

सत्यमेव जयते

(*b*) SPECIAL (TO CERTAIN RAILWAYS, REGARDING FREIGHT RATES AND DESPATCHES OF CEMENT).

(*Letter, dated 24th November 1924, to the East Indian, Great Indian Peninsula, Bombay, Baroda and Central India and Bengal Nagpur Railway Companies, Limited.*)

To E. I., G. I. P. and B., B. and C. I. Railways.—I am directed to address you in connection with the Board's enquiry concerning protection for the cement industry in India.

2. *To E. I. Railway.*—The Board have been supplied with copies of the G and H telescopic schedules which regulate the freight on cement on the Great Indian Peninsula and the Bombay, Baroda and Central India Railways, respectively. I am to request that a copy of the corresponding schedule, which governs the freight rates for cement on your railway may kindly be supplied to the Board.

3. *To E. I. Railway.*—The Board understand that special rates, lower than the schedule rates, have been granted by your railway to some of the Indian Cement Companies for through booking to Howrah. I am to enquire what concessions of this kind have been

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(   ) to B. N. Railway only.

granted by the East Indian Railway and to request that the difference in each case between the schedule rate and the special rate may be stated.

4. *To G. I. P. and B., B. and C. I. Railways.*—The Board have been supplied with a copy of the G and H telescopic schedule which they believe regulates the freight on cement on your Railway. They understand, however, that special rates lower than the schedule rates have been granted to some of the Indian Cement Companies for through bookings to Bombay. I am to enquire what concessions of this kind have been granted by the Great Indian Peninsula Railway, and to request that the difference between the special rate and the schedule rate in each case may be stated.

5. *To E. I., G. I. P., B., B. and C. I., and B. N. Railways.*—(In connection with the enquiry which the Tariff Board are conducting with regard to protection of the cement industry in India, I am directed to request) I am also to ask that you will inform the Board what quantities of cement were despatched by your railway in each of the three years 1921-22, 1922-23 and 1923-24 from Howrah and the docks to stations up-country. If there is difficulty in in obtaining the figures of the two earlier years, it will suffice to give the figures for 1923-24.

6. *To E. I., G. I. P., B., and C. I and B. N. Railways.*—The Board will move to Calcutta, No. 1, Council House Street, about the 25th instant and I am to request that your reply to this letter may be sent there at an early date after the 1st December.

(4) Indian Engineering Association.

(*Letter No. 742, dated the 22nd August 1924.*)

I am directed to enclose a copy of the evidence of the applicants for protection recorded by the Tariff Board in the course of its enquiry into the cement industry.

2. There are certain aspects of the case on which the opinion of the Indian Engineering Association would be of special value. The difficulties under which the cement companies are labouring to-day are admittedly due in part to over-production in India. The various cement factories in existence have an aggregate capacity of over 500,000 tons a year, whereas the total Indian consumption in 1923-24 was about 340,000 tons. Some of the companies anticipate that consumption will increase rapidly, and will in a year or two suffice to keep all the factories fully employed. In support of their belief they point out that the consumption in 1909-10 was only 100,000 tons, and that in the last fifteen years it has increased by 240 per cent.

3. The point which the Tariff Board are anxious to investigate is how far the increase in consumption depends on the continuance of a relatively low selling price, and how the consumption would be affected if the price were to increase substantially. The use of

cement in engineering works must often be regulated by its cost as compared with other materials, and the question to what extent it is advisable to make use of it, must frequently come up for consideration by engineering firms. In particular, it has been suggested by the cement companies that for many purposes cement might be used where lime has been used hitherto, and in that case a considerable increase in consumption might be anticipated.

4. It is claimed by the cement companies that the quality of the cement they manufacture is in all respects equal to that of the cement imported from Europe. They state, however, that some users continue to buy imported cement even though the price is much higher, and they ascribe this practice largely to prejudice, but also to the fact that the Indian companies supply cement in bags and not in barrels. European cement has, of course, been subjected to one test which cannot yet be applied to Indian cement, for it has proved its lasting qualities in buildings constructed many years ago. A number of years must elapse before Indian cement can be fully tested in this way. But there are other tests available, and it is important to the Board to ascertain the opinion of large consumers of cement, both as to the quality of the Indian product, and as to the advantages of one form of packing rather than another.

5. The points on which the Board would be glad to have the opinion of the Indian Engineering Association may be summarised as follows:—

(1) It is likely that, if the price of cement remains at about its present level, there will be a substantial increase in the consumption of cement for constructional purposes.

(2) What percentage of increase in the present price of cement would be likely to have the effect of—

(*a*) retarding the growth of consumption;

(*b*) stopping the growth of consumption altogether;

(*c*) producing an actual decrease in consumption?

(3) Can cement at its present price level be used economically for many purposes to replace lime? If not, at what price would cement begin seriously to compete with lime?

(4) Has Indian cement been used for constructional purposes by the engineering firms in India, and, if so, has its quality been found satisfactory and equal to that of cement imported from Europe?

(5) Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels, and is it likely that on this ground the preference might be given to imported cement even if the price were higher?

6. The Board would be glad to receive a written expression of the opinion of the Association on the points enumerated in the last paragraph. The Board have also written in similar terms to the

Engineering firms noted in the footnote.* I am to add that the Board will welcome any expression of opinion which the Association may offer on the claim to protection put forward by the cement companies.

(5) Bombay Port Trust and the Commissioners for the Port of Calcutta.

(*Letter, dated 2nd December 1924.*)

† I am directed to address you regarding certain points which have come up in the enquiry into the cement industry and on which the Tariff Board would be glad to have the opinion of the Bombay Port Trust.

‡ I am directed to refer to your letters No. 5247, dated 14th May 1924, and No. 7151, dated 3rd July 1924, on the subject of the Tariff Board's enquiry into the cement industry. There are certain additional points on which the Board would be glad to have the opinion of the Commissioners for the Port of Calcutta.

2. The difficulties under which the cement companies are labouring to-day are admittedly due in part to over-production in India. The various cement factories in existence have an aggregate capacity of over 500,000 tons a year, whereas the total Indian consumption in 1923-24 was about 340,000 tons. Some of the companies anticipate that consumption will increase rapidly, and will in a year or two suffice to keep all the factories fully employed. In support of their belief they point out that the consumption in 1909-10 was only 100,000 tons, and that in the last fifteen years it has increased by 240 per cent.

3. The point which the Tariff Board are anxious to investigate is how far the increase in consumption depends on the continuance of a relatively low selling price, and how the consumption would be affected if the price were to increase substantially. The use of cement must often be regulated by its cost as compared with other materials and the question to what extent it is advisable to make use of it, must frequently come up for consideration by technical advisers of the Port Trust. In particular it has been suggested by the cement companies that for many purposes cement might be used where lime has been used hitherto, and in that case a considerable increase in consumption might be anticipated.

4. It is claimed by the cement companies that the quality of the cement they manufacture is in all respects equal to that of the cement imported from Europe. They state, however, that some users continue to buy imported cement even though the price is

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*Messrs. Mackintosh Burn & Co.
Messrs. Martin & Co.
Messrs. Jessop & Co.
Messrs. Burn & Co.

†To the Bombay Port Trust.

‡To the Commissioners for the Port of Calcutta.

much higher, and they ascribe this practice largely to prejudice, but also to the fact that the Indian companies supply cement in bags and not in barrels. European cement has, of course, been subjected to one test which cannot yet be applied to Indian cement, for it has proved its lasting qualities in buildings constructed many years ago. A number of years must elapse before Indian cement can be fully tested in this way. But there are other tests available, and it is important to the Board to ascertain the opinion of large consumers of cement, both as to the quality of the Indian product, and as to the advantages of one form of packing rather than another.

5. The points on which the Board would be glad to have the opinion of $\frac{\text{Bombay Port Trust}}{\text{Commissioners for the Port of Calcutta}}$ may be summarised as follows:—

(1) Is it likely that, if the price of cement remain at about its present level, there will be a substantial increase in the consumption of cement by the Port Trust?

(2) What percentages of increase in the present price of cement would be likely to have the effect of—

- (*a*) retarding the growth of consumption;
- (*b*) stopping the growth of consumption altogether;
- (*c*) producing an actual decrease in consumption?

(3) Can cement at its present price level be used economically for any purposes to replace lime? If not, at what price would cement begin seriously to compete with lime?

(4) Has the quality of Indian cement been found satisfactory and equal to that of cement imported from Europe?

(5) Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels, and is it likely that on this ground the preference might be given to imported cement, even if the price were higher?

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Witness No. 1.

INDIAN CEMENT INDUSTRY.

A.—Written.

Statement I.—Representation, dated 13th November 1923, from Bundi Portland Cement Company, Limited, Punjab Portland Cement, Limited, The Gwalior Cement Company, Limited, The Katni Cement and Industrial Company, Limited, The Jubbulpore Portland Cement Company, Limited, The Central Provinces Portland Cement Company, Limited, The Dwarka Cement Company, Limited.

We beg to enclose herewith a memorandum that we have prepared for submission to the Tariff Board and in which the present position of the Cement industry and the steps necessary to save it from ruin are indicated.

Several of the Companies are in very serious financial straits and will inevitably disappear if immediate steps are not taken to avert the disaster. If this is allowed to happen, not only will several crores of Indian Capital be lost but the country will lose the industry which has done such valuable service during the war.

We trust that Government will forward our representation to the Tariff Board and instruct them to take up the question as an urgent matter when they visit Bombay this month.

Memorandum dated 13th November to the Tariff Board.

On behalf of the undersigned Cement Companies we have the honour to submit our case for enhanced protection for the indigenous Cement Trade against imported cement.

Up to 1912 India possessed no cement industry and all cement used in the country was imported either from the United Kingdom, the Continent or Japan. Appendix "A" shows the consumption of imported cement between the years 1910 and 1923.

Between 1912 and 1916 the following Indian Cement Companies came into operation:—

Name of the Company.	Capacity. Tons.
Indian Cement Co., Ltd.	20,000
Katni Cement & Industrial Co., Ltd.	30,000
Bundi Portland Cement, Ltd.	26,000
	76,000

In 1915 the output of the three companies came under the control of the Indian Munitions Board, and very little cement from these works was available for works other than Government and military works between 1915 and 1919.

The prices paid by Government ranged from Rs. 42-8 to Rs. 70 per ton while during the same period imported cement cost from Rs. 80 to Rs. 250 per ton. It will, therefore, be seen that the establishment of this key industry just at the beginning of the war saved the country an enormous sum in cost of an essential item of munitions.

The saving of steamer tonnage at a time when every ton of cargo space was of vital importance to the Empire, and every ship that sailed from Europe was subject to grave risk, was also of great but incalculable benefit not only to India but to the Empire.

As a result of the control established and the dearth of cement available during the period of control for general use, an inflated opinion of the potential requirements of the country was engendered and this was to some extent fostered by such pronouncements from official sources as the following from an article on the Portland Cement Industry by Messrs. Musgrave and Davies in the Indian Munitions Board Hand Book:--

> " After the war when works at present in abeyance will be continued, the requirements will be greater than ever. The use of ferro-concrete comparatively new even in western world is extending very rapidly, bridges and heavy structural work of all kinds and even ships being made of it. It will in itself provide a big market for Portland Cement. The opening up of Mesopotamia will also afford a large sale for Indian cement if it be available. * * * * * * The output of these factories being very much short of the present demand even, it will obviously not suffice for future requirements and there is still room for additional works in other parts of India."

As a result of these conditions, steps were taken by the existing companies to increase their outputs and a number of fresh companies were formed and works constructed to meet the anticipated enhanced demand until in 1923 the capacity of Indian works totalled approximately 600,000 tons of cement per annum and the Rupee capital invested in the Trade amounted to Rs. 4,58,29,351-3-8 (*vide* Appendix " B ").

Before the war, the consumption of cement in India was about 175,000 tons. The demand has increased to approximately 250,000 tons and will undoubtedly continue to increase rapidly as the country develops, but it will be seen that the production has for the time being far outstripped the capacity of the country to consume its own product.

Naturally the Companies are doing all that can be done to develop the demand and to establish themselves by producing cement of the finest quality, equal to or better than any cement imported.

They are, however, faced with material disadvantages.

1. There is a prejudice among certain Engineers against any indigenous product, and though, as far as cement is concerned, this is being overcome gradually, it takes time.

2. Works are mostly situated far from Ports which are the chief markets—Railway freight to Ports generally exceeds steamer freight from Europe.

3. Coal available compares unfavourably in quality with coal in Europe and owing to high pitsmouth cost and Railway freight is more expensive. Owing to wagon shortage, it is frequently difficult to obtain an adequate and regular supply of coal at the proper time thus involving large amounts being stocked with consequent lock-up of capital and deterioration of quality, or risk of stoppage of works.

4. In order to maintain quality at its best, Technical Supervision Charges in India are very much higher than in Europe.

5. Imported cement from the Continent has a great advantage owing to depreciated exchanges and though the quality is often indifferent, a section of the market will buy anything under the name of cement if it is cheap in price.

6. Importations for Government are free of duty and though the Stores Purchase Rules provide for the preferential purchase by Government Departments of Indigenous Stores, quality and price being equal, this rule is not invariably adhered to and the exemption of Government Stores from

duty often makes it difficult for the Indian Companies to compete in price, as they can and do in respect of quality.

7. Export is debarred partly by the heavy rail freights to Ports under which most of the Companies labour and partly by the exorbitant freight rates charged for shipments to Africa, Mesopotamia, etc., by steamer companies whose interest lies in maintaining the European Export.

The Indian Fiscal Commission laid down the following three conditions to be satisfied by any particular industry before the Tariff Board could recommend it for protection:—

1. *The Industry should be one possessing natural advantages.*—We submit, India has unlimited quantities of raw materials for making first class cement—this is being done to the extent of 500,000 to 600,000 tons per annum—Cement is an essential to India's progress and the Cement Industry is a key Industry in time of war. The market is there but requires now to be developed.

2. *The Industry must be one which without the help of protection is either not likely to develop or is not likely to develop so rapidly as is desirable in the interests of the country.*—We submit that owing to exceptional conditions, the industry has developed too rapidly for the country to keep pace with it and that breathing time is now required for the demand to catch up with the potential supply.

That it is desirable in the interests of the country that the Industry should receive all possible support pending the increase of demand which must inevitably come.

That it is most undesirable that an essential industry in which a large amount of Indian capital is invested should fall into disrepute.

3. *The Industry must be one which will eventually be able to face world competition without protection.*—We submit that in the matter of quantity and quality the Trade can already face this competition.

In the matter of price, for reasons already stated above, it requires assistance until such time as the local market has developed sufficiently to enable the whole production capacity to be absorbed, as only by working to full capacity can the Works produce economically.

Apart from the advantage to the country of having available large resources of first class cement the country derives indirect benefit from—

1. Retention of capital in the country.
2. Revenue from taxes—land and Railway freights.
3. Employment of labour and training of superior staff and artizans in technical knowledge.
4. The industry as a whole is at the present moment in a precarious position, while certain of the newer companies particularly find themselves unable to market more than a small portion of their output and consequently in most serious financial straits.

It is necessary again to emphasise that if forced into liquidation, it will not only reflect on the cement industry but on industrial ventures generally and be a further discouragement to the already shy Indian investor.

The Industry, therefore, seeks the assistance of the Commission in respect of:—

1. A recommendation to Government that all cement required for Government purposes be purchased in the country, provided—

(*a*) Quality is satisfactory.

(*b*) Price is not in excess of the price of imported cement delivered at site including the amount of import duty whether charged or not.

2. A request that Government will bring pressure to bear upon the Steamship Companies trading between the Coast Ports of India, East Africa and the Persian Gulf to reduce the freight rates charged on cement to at least 20 per cent. less than the rates current from Europe to the Ports concerned.

3. A request that Government will place Cement Companies in the "Special Classification" for allotment of coal wagons inasmuch as the Rotary Kiln Process of Cement Manufacture is a continuous process and to shut down the kilns for lack of coal is as disadvantageous to them as to shut down the blast furnaces of the Tata Iron and Steel Works is to them.

4. That an import duty be levied on all imported cement of Rs. 25 per ton, not of 15 per cent. on a variable valuation as at present.

APPENDIX "A."

Imports of Cement into the Indian Empire.

Year.	Total imports from United Kingdom alone		Total Imports from all countries.		The value of imports in column three.
	Tons.	Cwts.	Tons.	Cwts.	
1910-11 . . .	110,161	8	126,644	16	£307,099
1911-12 . . .	100,728	6	116,951	3	£299,771
1912-13 . . .	123,534	13	160,564	9	£457,478
1913-14 . . .	121,895	5	146,518	12	£438,991
1914-15 . . .	123,981	7	144,972	11	£449,112
1915-16 . . .	86,439	18	131,625	5	£469,010
1916-17 . . .	61,002	17	89,388	4	£424,468
1917-18 . . .	68,521	19	83,755	5	£504,522
1918-19 . . .	8,536	6	27,177	0	£260,433
1919-20 . . .	75,357	5	91,805	7	£926,037
1920-21 . . .	128,283	0	130,721	0	Rs. 1,39,43,450
1921-22 . . .	79,886	0	124,727	0	Rs. 1,38,69,935
1922-23 . . .	96,976	0	133,268	0	Rs. 1,03,53,146
1923-24 (up to August)	35,135	0	41,912	0	Rs. 28,09,199

APPENDIX " B."

Capital invested in the Cement Industry.

	Rs.	A.	P.
The Central Provinces Portland Cement Co., Ltd.	1,10,73,179	10	0
The Dwarka Cement Co., Ltd.	78,69,326	9	7
The Jubbulpore Portland Cement Co., Ltd.	54,32,301	0	8
The Punjab Portland Cement, Ltd.	52,61,298	2	3
The Katni Cement and Industrial Co., Ltd.	45,00,529	4	3
The Bundi Portland Cement, Ltd.	43,18,763	10	9
The Gwalior Cement Co., Ltd.	40,55,613	8	2
The Indian Cement Co., Ltd.	21,57,581	2	2
The Shahabad Cement Co., Ltd. (Under construction)	11,60,758	3	10
	4,58,29,351	3	8

Statement II.—Further representation dated the 8th December 1923, from the Dwarka Cement Company, Limited, on behalf of the Indian Cement industry, to the Government of India.

In acknowledging the receipt of your letter No. 16-T. of the 4th instant, we have the honour to say that the urgency of our case as you might have already noted has been sufficiently made out in the relative representation sent to you under cover of our letter of the 13th ultimo. We have, therefore, to urge that Government do take immediate notice of this matter, failing which we are very much afraid that relief, even if it be sanctioned by the Tariff Board in due course, might come too late and thus become ineffective.

As this industry gave to the Government substantial help during the war times, it will be admitted that the industry as such has a right to request Government to at once take up their case for consideration as their position has at present become very precarious. It is, therefore, highly essential, both in the interests of the country as well as indirectly in the interests of the Government, that urgent attention be paid to this industry.

Statement III.—Further representation dated the 29th December 1923, from the Dwarka Cement Company, Limited, on behalf of the Indian Cement industry, to the Government of India.

We have the honour to invite your attention to our letter No. TB/4651 of the 8th instant in connection with the above. As the case is urgent, we shall be obliged by your letting us know at an early date the decision which the Government may have arrived at in this connection.

We may once more repeat here that relief is urgently necessary in the case of this industry and if consideration is postponed, damaging results might ensue.

Witness No. 2.

THE CENTRAL PROVINCES PORTLAND CEMENT COMPANY, LIMITED.

(Managing Agents.—Messrs. Mathradas Goculdas & Co.)

A.—WRITTEN.

Statement I.—Replies to questionnaire (1) (a).—Letter dated 14th June 1924.

We enclose herewith our answers to the questionnaire of the Tariff Board.

We desire that as far as possible the details of our Works costs should not be published.*

A copy of our mining lease, which is referred to in our answer to question 20, will be sent to you within a few days.

Mr. Captain, who has been in charge of the Bombay office since 1922, will be in Simla from the 26th June till the 28th June, and will be ready to answer any questions which the Board may wish to put to him. If necessary, Mr. Captain can be in Simla earlier. Please let us know when it will be convenient for the Board to examine Mr. Captain.

ANSWERS TO THE QUESTIONNAIRE.

1. The Company was registered as a public registered Company in 1919, but did not begin to produce cement till the middle of the year 1923.

2. About 50 per cent. of the shares are held by Indians. The rest of the shares are held by Europeans resident in India. Two out of 3 Directors are Indians. The partners in the Managing Agents' firm of Messrs. Mathradas Goculdas and Company are all Indians. The Manager and all the staff in the head office are Indians. The General Manager at the Works is an American. Besides the General Manager who is an American, there are only 3 Europeans employed at the Works. The rest of the staff is entirely Indian.

3. The Company manufactures only cement for sale.

4. The factory commenced to manufacture cement regularly on a commercial basis from about October 1923.

5. The full capacity of the factory is 100,000 tons of cement every year.

6. The factory has not yet worked for a complete year. Since 1st October 1923 until 31st May 1924, the production of cement was 23,050 tons.

7. The factory is situated at Kymore (Central Provinces) near Jukehi on the East Indian Railway.

(*a*) The factory is advantageously situated as regards raw materials, because both limestone and clay, which are the principal raw materials required by a cement factory, are available in large quantities on the Company's own property within a mile of the factory buildings.

(*b*) The factory is also advantageously situated in respect of vicinity to the coalfields. The Burhar collieries of Rewah State and the Rewah collieries of Messrs. Villiers Limited are only about a hundred miles from the Works. The Burhar coal is exclusively used to generate all the power required at the factory. Some first class Jheria coal from the Bengal coalfields is also used in the Kilns at the factory. The distance of the factory from the Bengal coalfields is about 500 miles, so that even as regards the Bengal coalfields the situation of the factory is quite good.

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* This stipulation was withdrawn during the oral examination.

(c) The factory is very advantageously situated as regards the markets of the United Provinces and the Central Provinces. These, however, are not very important markets.

The factory is not very near the important towns of Bombay and Calcutta, being about 650 miles away from either place. Still it is not badly situated as regards these important centres, and as a matter of fact since the factory has been started the bulk of its production has been sold in the Bombay Presidency and Calcutta.

(d) There is an abundant labour supply at the factory and from this point of view the factory is well situated.

In our opinion the most important factors in selecting the site of a cement factory in India are (1) vicinity to the areas from which the Raw Material is drawn, (2) vicinity to important markets, and (3) vicinity to the coalfields.

8. Since October 1923, when the factory began to work, it has produced 23,050 tons of Portland Cement, which is the only kind of cement manufactured at the factory.

9. Our cement is well above the British Standard Specification. There are some changes necessary in the British Standard Specification as regards India and we understand these changes are at present under consideration.

10. We are satisfied that the cement we are producing in our factory is equal in quality and appearance to the very best imported cement.

Recently the Calcutta Port Commissioners after making enquiries about the quality of our cement purchased 5,000 tons of our cement which was required by them for the construction of King George's Dock. The whole of this quantity was supplied between February and April 1924. After the whole quantity was supplied the Engineer in charge informed our representative that the cement supplied was as good as any cement he had previously used.

Our cement does not command anything like the same price in the market as the imported cement. The price realised for our cement in Bombay and Calcutta is between Rs. 10 and Rs. 15 per ton less than the price of imported cement.

This is due to the fact that the imported brands are well known and have established a reputation for themselves. Engineers and Contractors have used these brands for years and years and have found them thoroughly satisfactory. They are naturally afraid to try a new brand of cement made in India probably as they think by inexperienced persons. Apart from this natural prejudice against a new and untried article, there is a belief in the mind of many engineers that Indian cements are not up to the highest quality of English cements and that it is not safe to use these Indian cements for important works. There may have been some foundation for this belief some years ago, but there is certainly no foundation for it now.

As this prejudice against Indian cements undoubtedly exists, the Indian Cement Companies are compelled to sell their cement cheaper than the imported brands in order to induce people to give the Indian cements a trial.

It is believed that this prejudice against Indian cements is slowly dying out and that in a few years it will die out altogether.

It is only fair to point out, however, that the present great difference in the markets of Bombay and Calcutta between the price of Indian cement and imported cement is not due entirely to a preference for imported cement on the part of the consumer, but is due in a great measure to the severe internal competition between the Indian manufacturers themselves.

If a stiff duty is put on Foreign cement entering the country, the people in Bombay and Calcutta now using the imported brands of cement will be compelled to use Indian cements and will actually benefit financially by doing so. We feel confident that once these people use good class Indian cements, they will be thoroughly satisfied with their quality.

(*N.B.*—The Continental cement imported into India does not command anything like the same price as the cement from the United Kingdom. But the quantity of Continental cement imported into India is negligible as compared with the quantity of cement from the United Kingdom.

In the year ending 31st March 1923, 113,000 tons of cement were imported into India. Of this total as much as 95,739 tons came from the United Kingdom.)

II. RAW MATERIALS.

11. The raw materials used at our factory are limestone, clay and gypsum.

12. (*a*) According to our present output (which we believe will work out at about 50,000 tons during the year) we should consume during a year 67,000 tons of limestone and 22,000 tons of clay and 2,200 tons of gypsum.

(*b*) If the plant produces 100,000 tons of cement a year, which is its full capacity, it should consume 134,000 tons of limestone, 44,000 tons of clay and 4,400 tons of gypsum ordinarily.

If, however, the consumption of limestone at our factory continues to be what it is at present we shall require at least 150,000 tons of limestone to make 100,000 tons of cement.

13. It requires 1⅓ tons of limestone to make 1 ton of cement, but this varies with the material. The amount of clay necessary for making 1 ton of cement would be ·45 ton. The amount of gypsum necessary to make 1 ton of cement is ·045 ton.

The percentage of waste

(*a*) before calcining varies with the material.

(*b*) 30 per cent.

(*c*) very small.

At our factory the consumption of limestone is somewhat greater and we use about one and a half ton of limestone to make a ton of cement.

14. This varies with the water content.

15. Approximately 2,150 lbs. of clinker is required to make 1 ton of cement.

16. All the limestone and clay required at the factory are to be found on the site quite close to the factory buildings. A map is attached showing the factory, the quarry and the clay fields.

17. The limestone is at present collected by hand. But we have two Bucyrus shovels and by October next all our limestone will be obtained by means of these shovels. The limestone is transported from the quarry to the factory, a distance of about 5,500 feet, in dump cars by locomotives. The clay is brought from two places. In the quarry the limestone itself is covered with clay. This clay is transported the same distance and in the same manner as the limestone. Our principal clayfields are only about 600 feet from the factory. The clay from these fields is transported in hand carts.

18. We pay for our lease a rent to Government of Rs. 5,500 a year and an extra sum of Rs. 5 per every acre worked for raw materials.

19. The cost per ton of limestone is high now but will go down considerably as soon as we begin to use our Bucyrus shovels.

20. We annex a copy of our lease.*

There is one clause in our lease from Government namely, clause 14 (*b*) of Part V which we think is unfavourable. This clause compels us to employ at the Works none but British subjects. This means in practice that we are compelled to get our experts from England and are prevented from employing American experts. Ordinarily speaking, we would prefer if possible to get our experts from England, because for one thing the wages of an English expert are less than the wages of an American. The field for selection, however, is much larger in America than in England. This will be easily realised when we remember that America produces more cement than the rest of the world put together.

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* Not printed.

Cement experts of the right type are not easily procurable from England, especially nowadays when the English cement factories are working 3 shifts a day owing to the increased demand for cement in England. This is borne out by our own experience.

In April 1922 we dismissed the then General Manager at the factory and were consequently urgently in need of another General Manager. We cabled immediately to our Consulting Engineers in England to send out a really good man as soon as possible. For about 4 months our Consulting Engineers tried hard to find a suitable man but were unable to do so although at this time we were prepared to pay practically anything in reason for a really good man.

When we found that we could not get a General Manager in England and that the work at the factory was suffering considerably for want of a General Manager, we got our present General Manager Mr. Austin from America.

About six months after Mr. Austin's arrival at Kymore, the Central Provinces Government wrote to us pointing out that we had committed a breach of a Covenant in the lease and that they had become entitled to forfeit our lease. We explained to Government that we had inadvertently overlooked clause 14 (*b*) of Part V of the lease and asked Government to allow Mr. Austin to complete his 3 years' agreement with the Company. Government then as a special case gave permission to us to retain Mr. Austin until the expiration of his present contract.

Again about 4 months ago we came to the conclusion that our Indian burners were not quite efficient and that it would be desirable to get out an expert burner from England. Although during the last 4 months we have sent several cables and written several letters to our agents on the subject, they have been unable so far to procure a suitable man for us.

We submit therefore that it is a real hardship to us not to allow us to get out experts from outside England. As far as we know, the older Cement Companies are not tied down by a similar restriction.

21, 22, 23. Information is not available at the head office.

24. We have not had to draw our supplies of raw materials from a new area.

25. We have experienced no difficulty in obtaining leases.

26. We do not import any of our raw materials.

27. We get our gypsum by rail from the Punjab and from places near Jodhpur. The freight on this gypsum is fairly heavy.

III. LABOUR.

A. Quarry Labour.

28—31. Our quarry work is at present let out to contractors who employ from 300 to 1,000 men. We shall be able to dispense with the contractors in a few months when our Bucyrus shovels are ready to work.

B. Factory Labour.

32. The processes of manufacture require some expert supervision involving the employment of a few men imported from abroad.

33. The General Manager and the Chief Chemist are the only 2 men at present working at the factory who were imported from abroad. We con-

template bringing out a burner from England as soon as we can get one. We ought to mention that we have also working at the factory 2 Scotchmen who were engaged in India. One of these is occupying only a subordinate position. Even if the factory was working to its full capacity, there would not be any necessity to import any more labour from abroad.

34. Our factory commenced working only last October. The General Manager at the Works has taken and is still taking great pains to train Indian labour. As a matter of fact, the entire skilled labour in charge of the Mills and the Kilns is at present Indian. The Chief Chemist has 2 Indian Assistants working under him. .

Eventually it should be possible to work the entire factory with Indian labour.

35. The wages paid to men imported from abroad are naturally much higher than the wages they would receive in their own country.

36. The total number of Indian workmen employed at the factory is 650. The total wages paid to them every month amount to Rs. 18,000. The wages of Indian workmen vary from about Rs. 300 a month to about Rs. 15 per month.

Part of the labour force at present is employed for finishing the construction of the factory.

37. The total wages bill for Indian labour at the factory during the eight months since the factory has been working amounted to Rs. 1,47,688.

A considerable amount of work at the factory is done through labour contractors such as quarrying limestone, transporting clay, loading and unloading wagons off coal, Gypsum and Cement, packing cement, etc. We have paid during the last 8 months to such labour contractors about Rs. 80,000 in all. This is in addition to the factory wages of Rs. 1,47,688 above referred to.

38. The labour force is quite sufficient. The unskilled labour is drawn from the vicinity of the factory while skilled labour is drawn both from the vicinity and other parts of India.

39. The Indian labourer improves considerably with training. We are informed that the present efficiency of Indian labour at our factory compared with labour in an advanced country like America is about 1 to 6.

40. We have erected a considerable number of bungalows and chawls on our premises for our staff. With the exception of a few coolies who live in the neighbouring villages, the entire staff is accommodated on the premises in our bungalows and chawls. We provide medical assistance and drugs free of charge to the whole staff and their families. A school for the children of the workmen is also maintained on the premises.

IV. POWER (INCLUDING FUEL).

41. The power at the factory is derived from steam turbines generating electric power.

42. The cost per unit of power at our factory which is about 8 pies per unit compares quite favourably, we believe, with the cost in other factories

43. Coal which is the fuel employed is available in sufficient quantity.

44. We require approximately half a ton of coal to make a ton of cement.

45. The Boiler coal which comes from the Burhar coalfields about a hundred miles from the Works costs Rs. 8 per ton f.o.r. colliery siding. The freight on this coal is Rs. 3-3-0 per ton. The Kiln coal chiefly used comes from the Bengal coalfields which are about 500 miles from the Works. The freight on this coal is Rs. 8-5-0 per ton.

46. We do not own or control the sources of our fuel supply.

47. *Nil.*

V. MARKET.

48. Our factory has been working only since 1923.

Our information, however, is that the total amount of cement made in India in the year 1920 did not exceed 86,000 tons.

In the year 1922, however, as a result of the extension of the old cement factories and the establishment of new ones, the production of cement in India rose to about 148,000 tons. During the year 1923 more new plants began to operate and in this year the production reached the figure of 235,000 tons. It is quite certain that during the year 1924, the quantity of cement produced will be even greater than the quantity produced in 1923.

49. We estimate that during the year 1923, the total quantity of cement consumed in India was about 340,000 tons (about 227,000 Indian and about 113,000 imported).

50. It is reasonably certain that the Indian demand for cement will increase very substantially within a short time.

Experience in Europe and America goes to show that the consumption of cement increases with great rapidity as a country advances.

In the United States of America the production of cement in 1903 was 4,244,600 tons. In the year 1913 the production had increased to 17,498,430 tons. The industry was disorganised and the production fell considerably during the war. After the war was over, the industry recovered very quickly and by 1920 the production had gone up to 16,700,000 tons. In 1922, the production rose to about 19 million tons and in 1923 the production jumped to nearly 23 million tons.

It is important to remember that the export of cement from America is very small. As a matter of fact in the year 1923 the imports of cement into America, which amounted to about 250,000 tons, substantially exceeded the exports.

The figures for Canada are still more startling.

In 1903 Canada produced only about 100,000 tons of cement but in 1913 the production was 1,400,000 tons, that is the production in ten years increased 1·400 per cent.

In Japan the production of cement has risen to about 2,500,000 tons a year.

In India itself the consumption has more than trebled during the last 12 years, and this in spite of the recent high prices of cement. In India in 1912 the consumption of cement was only just over 100,000 tons. In 1920 it was about 200,000 tons. In 1923 it was about 340,000 tons.

The quantity of cement that India is now consuming is ridiculously small, even when allowance is made for the comparative poverty of the people. India is advancing rapidly in all directions and the advance is almost certain to be accompanied by a larger consumption of cement. The new development schemes, which have been or are about to be undertaken in various provinces in India, must also lead to a much larger consumption of cement. Again the big drop in cement prices, which has recently taken place, is fairly certain to lead to an increased consumption.

Having regard to all the above factors, we do not think it unreasonable to suppose that in 3 or 4 years India will consume at least double the quantity of cement she is now consuming and that in 6 or 7 years India will consume annually about a million tons of cement.

51. Our most important markets are Bombay and Calcutta both of which places are about 650 miles from the factory.

The markets of the United Provinces and the Central Provinces are much closer to the factory, but these are not important markets.

52. No doubt we are more easily able to compete against foreign cements in all markets which are at a distance from the ports, but our own view is that at present these markets do not take any substantial quantity of imported cement.

53. Export of cement from India is probable in the near future to Ceylon, Singapore, Java and to East Africa, provided freight is obtainable at reasonable rates. As things stand at present, the freight from Bombay to Colombo is the same as the freight from England to Colombo.

It is difficult to form an estimate of the quantity of cement that India could profitably export, but in our opinion in the near future the quantity is not likely to exceed 50,000 tons.

54. Since October 1923, when we started manufacturing cement, the Calcutta Port Commissioners have purchased from us 5,000 tons of cement at Rs. 32 per ton f.o.r. Kymore.

Below we give a list of our contracts with Railway Companies :—

East Indian Railway .	3,000 tons.	Rs. 32	per ton f.o.r. Kymore.
Eastern Bengal Railway .	1,000 tons.	Rs. 34	do.
G. I. P. Railway . .	750 tons.	Rs. 32	do.

VI. FOREIGN COMPETITION.

55. In the cement trade in India, the competition from the United Kingdom is most severe. During the year ending 31st March 1923 the total imports of cements into India amounted to 113,137 tons. Of this quantity 95,739 tons came from the United Kingdom.

56. Practically the whole of the cement imported into India is Portland cement. Out of the total quantity of 113,137 tons of cement imported, 112,458 tons was Portland cement.

57. The f.o.b. price of British cement to-day is 8*s.* 4*d.* a barrel of 400 lbs. which works out at £2-7-6 (about Rs. 35) a ton. The freight to Bombay is about 16*s.* 4*d.* (Rs. 12-4-0) a ton. The duty is Rs. 9 a ton. The clearing charges would amount to about Rs. 2 per ton.

The f.o.b. prices of British cement during the years 1921, 1922, 1923 and 1924 are given below :—

	Per ton.
1921	£6-5-9
1922	£3-12-7
1923	£2-12-9
1924	£2-7-6

58. Information is obtainable from private sources.

59. *Nil.*

60. The following extract from the Associated Portland Cement, Ltd. Annual Report for 1923, dated 15th April 1923 also lends support to the statement that British manufacturers export cement to India at prices which are unremunerative :—

> " To hold our old standing (export market) connections, it has been necessary to sell at net Works cost and occasionally even lower."

The price of cement in England for home consumption is from £2-18-0 to £3-0-0 per ton,* whereas the f.o.b. price of English cement for export to India is only from £2-6-8 to £2-10-0 per ton.

61. Foreign competition is keenest in Calcutta, Rangoon, Madras, Bombay and Karachi.

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* This reply was subsequently modified as explained in Statement V.

During the two years ending 31st March 1923 and 31st March 1924 the following were the imports of cement at the above ports:—

	1922-23.	1923-24.
	Tons.	Tons.
Calcutta	62,081	43,798
Rangoon	27,292	26,796
Madras	18,565	21,337
Bombay	17,406	11,749
Karachi	8,771	9,457

62. We attribute the low prices at which foreign cement has entered into India since the war to low freights and to the world depression in trade.

63. The freight we have to pay to get our cement to Bombay is Rs. 15-8-0 a ton whereas the freight for cement from England to Bombay is only about Rs. 12 per ton. The freight on our cement to Calcutta is Rs. 11 a ton as against Rs. 12 a ton which is the freight from England to Calcutta. The freight on our cement to Karachi is Rs. 28-4-0 a ton as against Rs. 12 a ton from England to Karachi. The freight on our cement to Madras is over Rs. 30 a ton as against about Rs. 12 a ton from England to Madras.

The railway freight *plus* steamer freight with transhipment charges on our cement to Rangoon would amount to about Rs. 25 a ton.

64. No information.

65. We have no information on this point, but we should like to draw attention to the English export and import figures for cement during the 6 months ending June 1923. England imported during this period of six months 71,249 tons of cement and exported during the same period 259,968 tons.

It must also be mentioned that in India English cement commands a substantially higher price than Continental Cement.

66. (*a*) The Indian manufacturer is certainly at a disadvantage as compared with the foreign manufacturer as regards the cost of plant and machinery. All the plant and machinery for a cement factory has to be ordered from Europe or America. The ocean freights to India and the railway freights to the Works on a cement plant amount to a considerable figure. Then there is the customs duty which is supposed to be only 2½ per cent. in all cases, but which on many necessary parts is levied by the Customs Authorities at as high a rate as 15 per cent.

Hence the plant at site costs the Indian manufacturer much more than it costs his foreign rival. It should also be mentioned that the Indian manufacturer in order to erect his plant has to import expensive expert labour from England or America.

(*b*) The Indian manufacturer has naturally to pay much more for his expert labour, which he has to obtain from England or America, than his foreign rival. We are paying our General Manager, who is an American, Rs. 3,300 a month, our Chemist, an Englishman, Rs. 1,500 a month, and our Chief Mechanical Engineer, Rs. 1,200 a month.

The wages of a really good Chemist in England would not exceed £600 a year.

(*c*) Labour is cheap in India, but it is at present inefficient as compared with English-American labour. The efficiency of Indian labour is bound to improve as time passes.

(*d*) There is no difficulty at our factory as regards the collection and transport of raw material.

(*e*) The Indian manufacturer is at a considerable disadvantage as regards the cost of consumable stores. Most of these stores come from Europe or America and have to bear an import duty of 15 per cent.

(*f*) In answer to question 63 we have shown that the freight from our Works to Bombay and other ports in India is higher than the freight from

England to the Indian Ports. One of the reasons for the high freights is the fact that the cement has to travel by more than one Railway line.

If for example cement has to travel a distance of 500 miles along one railway line, the railway in question would probably give quite a substantial concession and the freight therefore would be quite reasonable. But if cement has to travel exactly the same distance of 500 miles along 8 separate railway lines, then probably we would not be able to get any concession whatsoever from any of the 3 railways with the result that the freight payable would be perfectly exorbitant.

Thus our cement in coming to Bombay has to travel from Jukehi to Jubbulpore, a distance of 67 miles along the East Indian Railway and from Jubbulpore to Bombay a distance of 616 miles along the Great Indian Peninsula Railway line. The freight on cement for the 616 miles from Jubbulpore to Bombay is Rs. 10-5-10 a ton, whereas the freight for the 67 miles from Jukehi to Jubbulpore is as high as Rs. 4-13-2 a ton.

(*g*) An Indian manufacturer must of necessity keep a much larger stock of spare parts than his foreign rival.

(*h*) The customs duty of 15 per cent. which is payable in India on all stores and necessary materials which have to be imported is an additional disadvantage for the Indian manufacturer.

(*i*) At present it is much more difficult to raise capital for an industrial venture in India than it is in England or America.

67. The disadvantages in relation to the cost of expert labour and the efficiency of ordinary labour will to a large extent disappear within—say—5 years.

68. (*a*) The Indian manufacturers of cement in the Central Provinces and in Behar (Sone Valley Portland Cement Co., Katni Cement Company, Jubbulpore Cement Company and the Central Provinces Portland Cement Co., Ltd.) are not at any great disadvantage owing to the distance between the sources of fuel and the areas where the Raw Materials are found.

(*b*) The Indian manufacturer in most cases is at a disadvantage owing to the distance from the factory to the principal markets.

VII. EQUIPMENT.

69. Our factory is quite large enough to ensure economic production. In our opinion, to ensure economic production, a factory should be able to produce about 40,000 tons a year.

70. The manufacture of cement requires the use of very elaborate and very expensive machinery.

71. The capital outlay on plant and machinery is 59 per cent. of the total capital outlay.

72. At our factory there are 2 crushers made by Messrs. Allis Chalmers of America. The cement making machinery which has been supplied by Messrs. F. L. Smidth & Co. includes 2 kilns. The boilers have been supplied by Messrs. Babcock and Wilcox. Two 1,500 K. W. Turbo Generators have been supplied by Messrs. Metropolitan Vickers. The electrical equipment including the motors have been supplied by the English Electric Company. Our plant began operating about the middle of 1923.

73. Our machinery and equipment is quite up to date.

74. *Nil.*

75. Our factory has been only recently erected and is up to date in every way.

76. We do not contemplate any renewals or replacements. When the demand in India for cement overtakes the supply, we shall probably put in a third Kiln.

77. No part of the actual machinery in our factory is made in India.

VIII. CAPITAL ACCOUNT.

78. The block value of our property as it stood in our books on the 31st March 1924 is :—

	Rs.
Leases and concessions	5,00,000
Land	1,48,431
Buildings	33,23,174
Plant and machinery	75,29,572
Other Miscellaneous assets	11,83,624
	1,26,84,801

Additional Capital Expenditure up to 31st March 1924 (pending adjustments).

	Rs.	A.	P.	Rs.	A.	P.
(1) Buildings	66,831	7	5			
Machinery and plant	5,790	0	5			
Roads	4,900	0	0			
Railways	2,62,284	7	3			
Water Scheme	40,426	4	0			
				3,80,232	3	1

(2) Unallocated Working Expenditure—

	Rs.	A.	P.
Expenditure during the half-year to 30th September 1923	71,179	0	11
Interest on Debenture Loan from 1st April 1923 to 30th September 1923	2,84,333	12	2
	3,55,512	13	1

Besides the following item has not also been taken under Block Account up to 31st March 1924, in our answer to Question 78.

	Rs.	A.	P.
(3) Preliminary Expenses, Brokerage on Debentures and Debenture Expenses	1,85,410	14	0
GRAND TOTAL	9,21,155	14	2

79 and 80. The figures given in answer to Question 78 represent the actual cost of various assets up to 31st March last. As the factory was under construction until recently nothing has been written off for depreciation. There is no depreciation fund.

81. We estimate that the present day cost under the heads buildings, plant and machinery of erecting a factory of the same capacity as ours would be—

(a) Buildings about 26 lakhs.

(b) Machinery about 60 lakhs.

Our capital expenditure on buildings is about 7 lakhs more and on machinery about 15 lakhs more than the above estimate. The operating cost of a new factory established now will be equal to our operating cost.

82. The Company began the purchases of machinery from the year 1920 and the sums spent thereon since then are as follows :—

	Rs.
1920	14,47,869
1921	15,64,323
1922	12,43,124
1923	1,33,560

£360,000 were remitted to England during the period September 1919 to April 1920 at rates of exchange ranging from 2/- to 2/4, 3/4. The cost of remitting £360,000 to London was therefore only Rs. 33,20,884-10-2. The balance was remitted to England at 1/4 exchange.

83. Company's capital :—

(*a*) Authorised capital	1 crore.
(*b*) Subscribed capital	60 lakhs.
(*c*) Paid-up capital	60 lakhs.

There are no preference or deferred shares. The ordinary share capital is divided into 1,000,000 shares of Rs. 10 each of which 600,000 shares have been issued and subscribed.

84 to 87. No dividend has yet been paid by the Company.

88. Company's Debenture Loans amount to Rs. 60 lakhs.

The first Debenture Loan of Rs. 40 lakhs was issued on the 6th of April 1922.

The second Debenture Loan of Rs. 20 lakhs was issued on the 2nd of March 1923.

Both these Debentures carry interest at the rate of 9 per cent. per annum.

The dates for their redemption are as follows :—

First Debenture Loan of Rs. 40 lakhs.

				Date of Redemption.
Series	A.	Rs.	10 lakhs	1st January 1926.
,,	B.	,,	5 lakhs	1st January 1927.
,,	C.	,,	5 lakhs	1st January 1928.
,,	D.	,,	5 lakhs	1st January 1929.
,,	E.	,,	5 lakhs	1st January 1930.
,,	F.	,,	5 lakhs	1st January 1931.
,,	G.	,,	5 lakhs	1st January 1932.

Second Debenture Loan of Rs. 20 lakhs.

Date for the redemption of the whole of this loan of Rs. 20 lakhs is 1st January 1928 or earlier. There is no Debenture Sinking Fund.

The Trustees for the Debenture Holders, who entered into possession of the Company's property about the end of April 1923 as the Company was unable to pay interest on its Debenture Loan, have had to borrow further sums amounting in all to Rs. 11,60,233-14-5 for completing and working the factory.

89. No reserve fund has yet been created.

90. The plant being quite new and up-to-date, replacement is not necessary. The plant was, however, originally laid out as a 3 Kiln plant and all the buildings have been constructed with a view to accommodate and run a 3 Kiln plant. If the cement trade in the country improves a third unit could be added at an additional cost of only about Rs. 10 lakhs. The installation of a third unit would increase the production of the factory by 50 pe [illegible]

IX. Cost of Production.

(a) Works Costs.

91. The 2 forms regarding Works costs duly filled in are attached. If possible, we would wish that the details of our costs are not made public.

92. Our factory which has been working only for the last 8 months is working at half its full capacity. If the factory was working at its full capacity, the total Works costs per ton would be reduced by about Rs. 2 or Rs. 3.

The principal items affected would be items 2, 4, 5 and 6 in Forms I and II.

93. Our Works costs will go down as our burners improve and get more production from the Kilns. Some improvement in this respect has already taken place and more is likely to take place soon. Our cost of obtaining the raw material will also go down within a few months. Under both these heads the reduction in the cost in the near future is not likely to exceed Re. 1 per ton.

94. We have adopted a system of cost accounting from which we make up a cost report daily. If the Board desires it, we are prepared to place these cost sheets before the Board.

95. We give below the cost of manufacturing cement in England in the year 1921, which is taken from "The Engineer," October 1921 :—

COST OF MANUFACTURE OF PORTLAND CEMENT PER TON.

Coal @ £2 per ton. *London labour rates.*

	£	s.	d.
Raw material delivered at Mill labour	0	1	0
Supplies—			
Powder, 2*d*.	0	0	6
Oil and waste, 2*d*.			
Coal, 2*d*.			
Fuel for power—Coal @ 40/- per ton	0	8	0
Fuel for Kiln	0	12	0
Labour in Mill	0	6	6
Repairs and Renewals, Lubricants, etc.	0	2	6
Gypsum	0	0	6
Superintendence, Laboratory and Mill Offices	0	1	6
Per ton .	1	12	6

Final cost of one ton of Portland Cement placed on trucks ready for shipment.

	£	s.	d.
Manufacturing costs as detailed	1	12	6
Depreciation	0	5	0
Selling charges	0	1	0
Interest on capital	0	5	0
Rates, taxes, insurance, etc.	0	0	8
Per ton .	2	4	2

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FORM I.

Statement showing the total expenditure incurred on the production of Cement during certain years.

(See question 91.)

——	First year of production.	1921-22.	1922-23.	1923-24.
(1) Raw materials . . .				Rs. 58,463·59
(2) Factory labour . . .				,, 50,584·55
(3) Power and fuel (including Kiln)				,, 2,20,981·55
(4) Ordinary current repairs, and maintenance of Buildings, Plant and Machinery.				New Plant.
(5) General services, supervision and local office charges.				Rs. 70,304·90
(6) Miscellaneous, *e.g.*, rent, Municipal taxes, insurance, etc.				,, 23,450·36
(7) Gypsum and Stores . .				,, 83,446·37
Packing 16,539 tons of cement				,, 1,18,226·59
TOTAL .				Rs. 6,25,457·91
TOTAL PRODUCTION OF CEMENT FOR THE YEAR.				22,331 tons.

N.B.—Total expenditure incurred on the production during six months only, *i.e.*, from 1st November 1923 to 30th April 1924.

FORM II.

Statement showing the works cost per ton of cement.

(See question 91.)

——	First year of production.	1921-22.	1922-23.	1923-24.
(1) Materials				2·618
(2) Factory labour . . .				2·265
(3) Power and fuel (including Kiln)				9·896
(4) Ordinary current repairs, and maintenance of Buildings, Plant and Machinery.				New Plant.
(5) General services, supervision and local office charges.				3·148
(6) Miscellaneous, *e.g.*, rent, Municipal taxes, insurance, etc.				1·050
(7) Gypsum and Stores . .				3·737
Packing				7·148
TOTAL .				29·862
Credit for materials recovered (if any).				*Nil.*
NETT TOTAL .				29·862

Average cost per ton during 6 months, *i.e.*, from 1st November 1923 to 30th April 1924.

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(*b*) OVERHEAD CHARGES.

(*i*) *Depreciation.*

96. Our information is that the rates of depreciation allowed by Income-Tax Authorities are as shown below:—

Buildings, 2½ per cent.
Plant and machinery, 7½ per cent. (Special rate for Cement Works using Rotary Kilns.)
Roads and railways, 10 per cent.
Water scheme, 7½ per cent.
Electric lighting and installation, 7½ per cent.
Furniture, 5 per cent.

We consider these are not unsuitable rates.

97. (*a*) The total sum required annually for depreciation at Income-tax rates on the total block account comes to Rs. 7,55,746 when all the assets are valued at cost. This is made up as under:—

	Rs.	A.	P.
On buildings	83,079	6	0
On plant and machinery	5,64,718	2	0
On other assets	1,07,948	11	0
TOTAL	7,55,746	3	0

97. (*b*) The factory being newly erected nothing has been written off for depreciation since its formation and therefore all the assets appear at cost.

98. Taking the figures given by us in answer to Question 81 as the present day cost of the buildings and machinery required for a factory having the same output as our present factory the sum required annually for depreciation at Income-tax rates would be:—

	Rs.
Buildings	65,000
Plant and machinery	4,50,000
Other assets	1,07,948
TOTAL	6,22,948

99. Taking the total amount of depreciation to be written off according to the methods given in our answers to Questions 97 and 98, the incidence per ton of cement would be:—

(*a*) According to the present output which is estimated to be 50,000 tons per year.

On the basis of our answer to Question 97 = Rs. 15-1-10.

On the basis of our answer to Question 98 = Rs. 12-7-0.

(*b*) According to the output equivalent to the full capacity, *viz.*, 100,000 tons per year.

On the basis of our answer to Question 97 = Rs. 7-8-11.

On the basis of our answer to Question 98 = Rs. 6-3-6.

(*ii*) *Working Capital.*

100. According to the present output, the working capital required by the Company is about Rs. 8 lakhs.

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According to the output equivalent to its full capacity the Working Capital required by the Company would be about Rs. 12 lakhs.

101. The Company is not able to provide all the working capital it requires from Share and Debenture Capital. It has therefore become necessary to borrow additional Capital both for completing and working the factory.

102. The additional Capital borrowed to date only for working the factory is Rs. 5,45,233. The rate of interest payable on same is 9 per cent. per annum.

103. Our Working Capital is about Rs. 8 lakhs. The cost of one month's output (excluding Overhead Charges) comes to Rs. 1,21,000.

104. The average value of stock of finished goods held by the Company is Rs. 2,12,000.

The period that normally elapses between production and payment is from 3 to 6 months.

105. The Company finds it necessary to hold large stocks of coal and raw materials. The average value of these stocks held at the factory amounts to Rs. 1,27,000.

(iii) *Agents' Commission and Head Office expenses.*

106. The Company has a head office in Bombay other than the office of the local management. This office would ordinarily be under the control of the Managing Agents, but is at present under the control of the Trustee for the Debenture Holders.

107. (*i*) The annual amount of the Head Office expenses is about Rs. 55,000.

(*ii*) According to the Articles of Association, the Managing Agents are entitled to Rs. 51,000 a year and ten per cent. of the profits. (*N.B.*– No remuneration has as a matter of fact been paid to the Managing Agents since January 1922.)

108. Please see last answer.

109. (*i*) The cost of Head Office expenses per ton of output according to the present output is approximately Re. 1-2-0 per ton and would be only nine annas per ton if the factory was working at its full capacity.

(*ii*) The cost per ton of the Managing Agents' minimum remuneration according to the present output would be about Re. 1 per ton and would be only 8 annas per ton if the factory was working at its full capacity.

X. MANUFACTURER'S PROFITS.

110. We would consider a return of 10 per cent. on ordinary shares quite a fair return.

111. If we contemplated the establishment of a new cement factory under present conditions in the financial market we would have to offer 9 per cent. on Preference Shares and 8 per cent. on Debentures. Under normal conditions we would probably be able to get the money at one per cent. less.

112. The minimum probable return on ordinary shares likely to attract investors would be 10 per cent.

113. (*a*) The incidence per ton of cement of a fair return on the Ordinary Shares would be according to the present output Rs. 12 per ton and Rs. 6 per ton if the factory was working at its full capacity.

(*b*) *Nil.*

(*c*) The incidence per ton of Cement on the Debentures would be according to the present output, namely, Rs. 11 per ton and nearly Rs. 5-8-0 per ton if the factory was working at its full capacity.

XI. CLAIM FOR PROTECTION.

114. We are of opinion that all the 3 conditions laid down in paragraph 97 of the report of the Fiscal Commission are satisfied in the case of the Cement Industry.

The industry is certainly an infant industry and there can further be very little doubt that the industry is one which is suitable for the country.

A. The industry undoubtedly possesses natural advantages. Raw materials, namely, limestone and clay of very good quality, are available in abundant quantity and can be won at very small cost.

Suitable coal also both for power and for burning in the Kiln is available in India in very large quantities. In many places, such as the Central Provinces and Behar (Sone Valley), limestone of a good quality is found in close proximity to coalfields. This is a great advantage.

The Burhar coalfields are quite close to the 3 cement factories in the Central Provinces and the Bengal coalfields are fairly close to the Sone Valley Cement Company's factory at Japla.

There is an ample supply of labour available in India for the industry both skilled and unskilled. Even now when the industry is in its infancy, not more than 4 of the officers employed at a cement factory in India need be non-Indians.

There is already a fairly good demand in India for cement, but the demand is sure to be much larger within a few years. (See reasons given in answer to Question 50.)

B. We certainly maintain that the industry is not likely in India to develop without protection. In one sense no doubt there has been a great development in the cement industry within recent years because within the last 4 years at least 5 new cement factories have been erected in India. If increase in a country of cement making machinery means the development of an industry, then no doubt it can be argued there is no room at present for any further development in the Indian cement industry. But what is the good to a country of machinery which is not working and which cannot work because of the importation in the country of foreign cement. To-day most of the factories in India are working at only half their full capacity and several of the factories have had to be shut down for months. We submit that the development of an industry in a country means increased production in the country of the product of the industry. We think it will be generally admitted that without protection there is no chance of an appreciably greater production or development in the cement industry.

It is reasonably certain that unless the industry receives protection, several of the factories will cease operating altogether and the Companies owning them will have to go into liquidation. If this were to happen, it will have a highly prejudicial effect on industrial enterprise generally in India.

If the cement industry gets protection immediately, it can be predicted with reasonable certainty that the industry in a few years will develop with astonishing rapidity.

To put the matter briefly, the country produces to-day about 230,000 tons of cement. There is a reasonable certainty that the production in India will increase with great rapidity with protection and that without protection the production will not increase at all to any appreciable extent, for years.

C. The cement industry, there is no doubt, will very soon be able to face world competition without protection.

Even now as far as prices and quality are concerned, it is able to face foreign competition in most places in India though not in all.

The cost of producing cement in many factories is high because the factories are not working at their full capacity owing to the impossibility under the present conditions of marketing their whole production. This cost is sure to come down when these factories work at their full capacity.

The cost will also further go down in a few years when the labour becomes more efficient. For example, it is possible that a burner who to-day produces 100 tons of clinker a day will 2 years hence produce in a day 120 tons with the same amount of coal. This will make a big difference in the cost.

115. We most emphatically claim that the cement industry fulfils both the conditions mentioned in paragraph 98 of the report of the Fiscal Commission.

(*a*) The cement industry is certainly one in which the advantages of large scale production can be achieved and in which increased output would mean increasing economy of production. Increased production as a rule in all industries makes for cheaper cost and the cement industry is certainly not an exception to the rule.

As pointed out above, the cost at present in many of the cement factories is higher than it need be because the factories are working at only about half their full capacity.

(*b*) Even to-day the possible output of the cement factories in India is not only sufficient to supply all the needs of the country but is in excess of such needs.

We submit this is a very strong reason why protection should be granted to the cement industry. As explained by the Fiscal Commission in their report, the burden on the consumer which is the chief objection to protection is practically *nil* in such a case.

The internal competition at present in the cement industry is so severe that manufacturers of cement are compelled to sell practically at cost prices and in many cases well below cost prices.

116. The cement industry is an industry of great national importance and may fairly be said to be a key industry. Cement is in a sense the raw material of every industry, because all factory buildings nowadays require a lot of cement for their construction.

The cement industry is also important from the point of view of national defence. Modern warfare cannot very well be carried on without cement. During the war the output of the Cement Companies working in India was therefore controlled by Government who required the same for the purposes of the war. Even at present a considerable quantity of cement is being used by the Military Authorities on the North-East Frontier.

Cement is moreover required in large quantities by Government Departments for works of public utility such as Irrigation Works, bridges, docks, reclamation works, etc.

We submit therefore that the cement industry is an industry of great national importance and that it is both necessary and desirable for India to have a cement industry.

A country which is dependent on foreign countries for its supply of cement would be in a truly dreadful condition in times of war when the foreign supply is entirely cut off or at any rate considerably curtailed.

117. There is this feature of the cement industry which makes it particularly suitable for a country like India, that it is quite possible for Indians even in their present state of industrial efficiency with the assistance of 2 or 3 foreign experts to make cement of the very highest quality. We believe this is not yet possible in the Iron and Steel Industry, nor even in the Textile Industry of India.

118. During the last year, imports of Portland cement amounted to 112,458 tons, whilst the import of other kinds amounted to only 679 tons. It may be argued that to protect the Indian industry, it is necessary to

impose protective duties only on Portland cement. But having regard to the very small quantity of other kinds of cement imported and the practical difficulties of having different import duties on different kinds of cement, we think that it is desirable that a duty at one uniform rate should be levied on all cements imported into the country.

119. To safeguard the industry against special risks of the kind here enumerated, we would suggest that the Executive in India should be empowered to increase the protective duty at its discretion.

120. (*a*) The existing duty on imported cement at present amounts to Rs. 9 per ton, at the rate of 15 per cent. on a tariff value of Rs. 60 per ton.

(*b*) The Indian cement industry in the important markets of Bombay, Calcutta, Madras and Rangoon receives absolutely no protection, because of the transport charges payable on foreign cement to bring it from the country of production to an Indian port. As a matter of fact, in most cases, these transport charges are less than the railway freights from the Indian factories to these ports. (See answer to Question 63.)

121. To protect the Indian cement industry adequately, it is necessary—we submit—that an import duty of at least Rs. 25 per ton should be levied on all cement imported into India.

As explained in our answer to Question 10, the Indian manufacturer has to sell his cement cheaper than the imported cement. To-day at the ports of Calcutta, Bombay and Karachi Indian cement is being sold at about cost price and in some cases even below cost chiefly because of the severe internal competition, with the result that there is a difference of between Rs. 10 and Rs. 15 a ton between the price at these places of Indian cement and imported cement.

In spite of this difference in price at Bombay, Calcutta and Karachi, some people prefer to buy the imported article, especially those who have to buy small quantities. If the duty on imported cement is increased by Rs. 16 a ton, the difference between the price of Indian cement and imported cement will be much greater than it is, and these people will thus be induced to give the much cheaper Indian cement at least a trial. We are confident that once these people give a fair trial to Indian cements, they will never in future be willing to pay more for imported cement.

At present it is impossible for the Indian manufacturer to sell cheaper than the foreign manufacturer in Madras and Rangoon, because of the heavy freights payable to transport Indian cement to these places. But if the duty is increased by Rs. 16 a ton, the Indian manufacturer, if he is content for the present to make little or no profit, will be able to sell his cement even in those markets cheaper than imported cement.

An import duty of an additional Rs. 16 a ton will not impose at all a heavy burden on the consumer. At present out of the total import of 113,137 tons of cement, 65,004 tons are imported into the ports of Calcutta, Bombay and Karachi. Now it is fairly certain that at present in Calcutta, Bombay and Karachi the price of cement is not regulated by the price of the imported article, but by the internal competition. If as a result of the increase in the duty consumers in Bombay, Calcutta and Karachi are compelled to use cheap Indian cement, there will be no financial burden on them, because they will be paying less for the Indian cement which they will be practically forced to use than they would have paid for the imported cement without an increase in the duty.

It must be admitted that, as regards the balance of 48,133 tons which enters India through the ports of Rangoon and Madras, there will be a burden on the consumer. The burden in these cases, it is submitted, will not be more than Rs. 10 per ton, although the duty will be increased by Rs. 16 a ton. The reason for this is that the Indian manufacturer will be bound to sell his cement substantially cheaper than the imported article.

The total burden on the consumer therefore, it is estimated, will be less than Rs. 5 lakhs a year. It is submitted this is a very small price for the country to pay for the protection and development of a very important industry.

122. The present productive capacity of the Indian cement factories now working is about 550,000 tons a year as against the total consumption in the country of only about 340,000 tons.

At present the Indian manufacturers are able to sell only about 227,000 tons of cement a year. As they cannot sell more they have to restrict their output to this quantity. The result is that many factories have to shut down for several months in the year, while others have to work at only half their full capacity. The costs of production therefore in the Indian cement factories are higher than they should be.

If the protective duty imposed is sufficiently high to keep out the imported cement altogether, the Indian manufacturer will be able to produce and sell 113,137 tons more of cement than he is doing at present. This will mean an increase of exactly about 50 per cent. on the present production. The production and sale in India of this extra quantity of cement will just about enable the new cement factories of India to keep their heads above water during the few years which must elapse before the demand overtakes the supply.

To put the matter shortly, protection will enable the Indian industry to produce and sell 50 per cent. more cement than it is doing at present and will thus be of great benefit to the industry.

Statement II.—Additional information furnished by the Central Provinces Portland Cement Company, Limited, in accordance with the request made by the Tariff Board during the oral examination of Mr. Captain, dated Bombay, the 7th July 1924.

1. Our cement has been tested both by the Government Test House, Alipore, and by Mr. J. Alexander Mitchell who tests all cement used by the Bombay Development Department.

Copies of the Reports on our cement made by the Government Test House and by Mr. Mitchell are annexed* hereto and collectively marked with the letter A.

2. The cost of a new empty barrel of cement in England is from 2*s*. 3*d*. to 3*s*. 3 *d*. A barrel ordinarily contains about 400 lbs. of cement.

3. In the details of the cost of production furnished with our first statement, we showed an amount of Rs. 83,446·37 as the cost of Gypsum and stores. Of this amount, Rs. 39,406·95 was the cost of Gypsum and Rs. 44,039·42 was the cost of stores.

4. Our Cost Sheets* for the six months ending 30th April 1924 are annexed hereto and collectively marked with the letter B.

5. During the six months ending 30th April 1924, we paid to labour contractors for packing and loading cement Rs. 2,828-0-5.

6. Hereto annexed and marked with the letter C is a statement† classifying the Indian labour employed at Kymore and showing the wages paid to each class.

7. Up to the 30th September 1923, the total amount paid by the Company for ocean freight and insurance on machinery, etc., was Rs. 3,12,409. The total amount of the railway freight in India paid by the Company on machinery, etc., up to the 30th September 1923 was Rs. 2,24,601. The total amount, paid by the Company for sustoms duty and clearing charges on machiner, etc., up to the 30th September 1923 was Rs. 4,54,467.

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*Not printed.

†Printed as Appendix I.

APPENDIX I.

Statement classifying the Indian labour employed at Kymore and showing the wages paid to each class.

Total Indian labour numbers . . . . 650.

Designation.	Rate.
Medical Officer	Rs. 350 per month.
Foremen	Rs. 250 to Rs. 300 per month.
Chemists	Rs. 150 to Rs. 250 per month.
Shift Engineers	Rs. 125 to Rs. 150 per month.
Cement Testers	Rs. 25 to Rs. 40 per month.
Fitters and Blacksmiths	Rs. 2 to Rs. 3-6-6 per day.
Electric Machinery attendants	Re. 1-2-0 to Rs. 3 per day.
Kiln Burners or attendants	Rs. 2 to Rs. 2-8-0 per day.
Head Burner	Rs. 5 per day.
Skilled Labourers	Re. 1-10-0 to Rs. 2 per day.
Semi-skilled Coolies	Re. 1 to Re. 1-8-0 per day.
Carpenters	Re. 1-2-0 to Rs. 2-4-0 per day.
Masons	Re. 1-4-0 to Re. 1-12-0 per day.
Pump attenders	Re. 1-8-0 per day.
Firemen and Greasers	Re. 0-10-0 to Re. 1-8-0 per day.
Millers for Raw Mill, Cement Mills and Coal Mills	Re. 0-12-0 to Rs. 2 per day.
Coolies	Re. 0-7-0 to Re. 0-10-0 per day.
Female Coolies	Re. 0-4-6 to Re. 0-5-6 per day.
Clerical Staff	Rs. 40 to Rs. 225 per month.

Statement III.—Supplementary information submitted by the Central Provinces Portland Cement Company, Limited, with their letter dated Bombay, the 24th October 1924.

We have received your letter No. 1087, dated the 21st October 1924.

We give below the information required by you.

I. *Freight rates in America.*—As far as we have been able to ascertain, there is no fixed freight rate for cement on the American Railways. It varies according to circumstances. It might be high in one direction and low in the other direction on the same rail road. A good deal depends, we understand, on what the traffic can bear.

II. *Extra amounts payable in India for Capital and Working Expenditure.*—During the construction period, that is up to the 30th September 1923, we paid for customs duty and clearance charges on machinery, etc., Rs. 4,54,467.

During the same period we paid for ocean freight and insurance on machinery, etc., Rs. 3,12,409.

During the same period we have paid for railway freight in India, Rs. 2,24,601.

During the operation period from the 30th September 1923 up to 30th September 1924, we paid for customs duty and clearance charges Rs. 11,612-14-7 (out of this sum Rs. 7,373-13-11 was paid in respect of items of Capital Expenditure).

During the same period, we used stores imported from Europe but purchased in India of the value of Rs. 1,02,375. Customs duty and clearance charges paid on these stores would be at least Rs. 15,000.

III. As regards the prices of imported cement from 1912 to 1914, we would refer you to the Indian Cement Company's evidence in answer to Question 57, at page 91 of the Board's cement publication.

Statement IV.—Replies to questionnaire (1) (b). (Letter, dated 8th December 1924.)

We are in receipt of your letter No. 1275, dated the 23rd of November 1924.

2. * * * * * * *

3. With reference to paragraph 3 of your letter, we have to inform the Board that we have included in the cost shown by us in Form II for power and fuel only the cost of coal consumed and the railway freight and the handling charges at Kymore paid by us in connection with the same. The handling charges average about 3 annas per ton.

The reason why our cost of power and fuel appears high in relation to our answers to section IV of the Questionnaire is that our answer to Question 44 is not quite accurate. We consume somewhat more than half a ton of coal to produce a ton of cement. The actual consumption of coal per ton of cement produced is about ·6 ton.

4. We give below the information asked for in paragraph 4 of your letter:—

(*a*) The total output of our factory for the first six months of the year 1924-25 was 17,251 tons.

(*b*) * * * * * *

Our factory was not working during the first six months of the year 1923-24.

5. With reference to paragraph 5 of your letter we have to state as follows:—

Messrs. Spedding & Co. have offered to supply us with staves and heads for making barrels. These staves and heads would have to be made into barrels at our factory, for which purpose a certain amount of additional machinery would have to be installed at the factory.

Messrs. Spedding & Co. have quoted for staves and heads for one barrel Rs. 2-6 *ex* their mills. The railway freight from their mills to our factory on staves and heads for one barrel would be Re. 0-8-3 per barrel. After we receive the staves and heads at the factory, it would cost us about 4 annas per barrel to make the staves and heads into barrels. The total cost of barrels would, therefore, be Rs. 3-2-3; we would require six barrels to pack one ton of cement.

Statement V.—Statement, dated 10th December 1924, from the Central Provinces Portland Cement Company, Limited, amending their reply to question No. 60 of Questionnaire (1) (a).

In our answers of the questionnaire of the Tariff Board, we have stated in answer to Question 60:—

"The price of cement in England for Home consumption is from £2-18-0 to £3-0-0 per ton."

We would like to bring to the notice of the Tariff Board that this is a misleading answer. The price to the English consumer of £2-18-0 to £3-0-0

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does not include bags which are charged for separately at the rate of £0-2-9 each. In England each bag contains 2 cwts. So the price of a ton of cement to the English consumer with bags is from £3-15-6 to £3-17-6 per ton, while the f.o.b. price of English cement including casks for export to India is from £2-6-8 to £2-10-0 per ton.

Statement VI.—Further supplementary information submitted by the Central Provinces Portland Cement Company, Limited, dated 2nd February 1925.

We beg to acknowledge receipt of your telegram No. 72, dated 31st of January 1925.

In reply we beg to confirm having sent you a telegram reading as follows :—

> " Your telegram No. 72, dated 31st January. Our total output for calendar year 1924 was 34,229 tons. Our total despatches of cement during this year amounted to 31,820 tons—CIPICEM."

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THE CENTRAL PROVINCES PORTLAND CEMENT COMPANY, LIMITED.

B.—ORAL.

Evidence of Mr. H. S. CAPTAIN, Manager, recorded at Simla on the 27th June 1924.

President.—Will you tell us what exactly your position is in the Company?

Mr. Captain.—At present I am working for the trustee for the debenture holder. I am managing on his behalf in Bombay. I am in charge of the head office.

Mr. Ginwala.—Who are the trustees for the Debenture holder?

Mr. Captain.—Mr. F. E. Dinshaw is the sole trustee for the Debenture holder. In fact he is the only debenture holder just now. He has bought out the other debenture holder, Mr. Mulraj Khataw.

Mr. Ginwala.—What about Mathradas Goculdas and Company?

Mr. Captain.—They are the managing agents.

Mr. Ginwala.—Have they any interest in the company?

Mr. Captain.—They are not managing just now. In the partnership firm of Mathradas Goculdas & Co., Mr. F. E. Dinshaw was a partner. The firm consisted of, Mr. Mathradas Goculdas, Mr. F. E. Dinshaw and Mr. Mulraj Khataw until he resigned, and this continued until the end of April 1923 when the company was unable to pay interest on the debenture loan, and the trustees for the debenture holders entered into possession and started working the company. The company had no money to go on working. It had no money left even to pay the ordinary wages, etc., and in order to keep the undertaking going the trustees took possession.

President.—In that case the debenture holders are people who have been connected with the company from the start?

Mr. Captain.—Yes.

President.—That is to say, they tried to get the enterprise on its legs, and for this purpose were ready to put more money into the company.

Mr. Captain.—I should like to qualify my statement in this way. They were not connected with the company from the beginning, but from the time when Mathradas Goculdas became managing agents, *i.e.*, from January 1922. Before January 1922 Messrs. Burn & Co. were the managing agents. The company was short of funds and required a big debenture loan, and Mathradas Goculdas & Co. procured the debenture loan and they became the managing agents.

President.—They were not shareholders before that?

Mr. Captain.—No.

President.—I would like in the first place to say that we are very much indebted to the company for the very full statement of their case, because it makes the oral examination a good deal easier. Nearly all the important facts are already down, and the oral examination therefore will be directed chiefly to clearing up certain points, and to amplifying what you have written on others. Before I begin to ask any questions, I think perhaps we might deal with the question of publicity. How far are you prepared to disclose figures as to your costs?

Mr. Captain.—We have said this that, as far as possible, we would like the details not to be disclosed, but we do not mind the actual figure of the cost being disclosed. But if you think that we should disclose all the particulars, we do not mind even that.

President.—In the first place, I take it, you have no objection as regards the overhead charges, because most of the figures could be deduced by a little arithmetic from the reports to the shareholders.

Mr. Captain.—No.

President.—There remains the question of the works costs. Undoubtedly the feeling of the Board is that we should like to have everything published, as far as possible. On the other hand I do not feel personally that I can press you beyond a certain point, because, although you may agree to disclose all the figures, some of the other firms may refuse.

Mr. Ginwala.—So far as you are concerned you are at present in the hands of the debenture holders, and therefore in your case publicity will not necessarily be a disadvantage.

Mr. Captain.—Except that it shows our rivals exactly what our costs are.

Mr. Ginwala.—One reason I am anxious that you should allow us to publish all the figures is that looking these figures and comparing them with other companies' figures, your figures seem to be more favourable, and we cannot ask these companies any question why their figures happen to be higher without referring to yours. It is very fortunate that you are the first to be examined and your figures are slightly lower than those of some of the other companies.

Mr. Captain.—Very well, I do not mind.

President.—You are prepared to let them all go in?

Mr. Captain.—Yes.

President.—The final responsibility must rest with you.

Mr. Captain.—I know.

Mr. Ginwala.—As you know eventually the Legislative Assembly and the Government of India are the final arbiters in this case, and it is essential that they should know everything that they would like to know before they make up their minds.

Mr. Captain.—Very well.

President.—Thank you. You have told us in answer to question 7(a) that limestone and clay are available in large quantities on the company's own property within a mile of the factory buildings. Have the company formed any estimate as to the total quantity of materials to be found within that radius?

Mr. Captain.—I cannot say that we have made a very accurate calculation, but we are satisfied that there is quite enough there to keep us going for about 50 to 60 years.

President.—Within a radius of one mile?

Mr. Captain.—Yes.

President.—I had to put this to you because, in answer to question 23, "How many years supply of your principal raw materials have you secured?" you merely say that information is not available at the head office.

Mr. Captain.—We had not very accurate information. Our chemist has made borings, and he feels that there is enough there to last for 50 years. Perhaps it is not as accurate as he might have done it, but for practical purposes we know the raw materials will last there for 50 or 60 years.

President.—Is that on the basis of an annual outturn of 100,000 tons?

Mr. Captain.—Yes.

President.—You do not anticipate that after a time you will have to bring your materials from a longer distance, which would raise your costs?

Mr. Captain.—No. The cost of raising limestone may go up a bit, because when we go down deeper it may cost us a little more, but I do not think it will make an appreciable difference—8 annas a ton at the most.

President.—You do not anticipate any considerable increase in your costs?

Mr. Captain.—No.

President.—In answer to question 7(*b*) you say that you bring your coal for power from the Rewah collieries, and that you require a certain amount of Bengal coal from Jheria for the kilns. Later on you have given us the quantity of coal that you require per ton of cement. How much of the coal do you require for your kilns and how much for power?

Mr. Captain.—I can give you figures. Roughly speaking with our present production—we are only working our plant to half its full capacity—the consumption for power purposes is about 1,000 tons a month and for kilns very nearly 1,500 tons a month.

President.—About 3/5 will be Bengal coal and 2/5 will be Rewah coal?

Mr. Captain.—That is right, but we are trying to make experiments also whether we cannot use this coal which is nearer to us for the kilns also, and we are mixing the two coals as a matter of fact at present.

President.—Are you using about half and half from these two sources?

Mr. Captain.—At present about half and half.

President.—Naturally the more Rewah coal you use, the cheaper it will be for you.

Mr. Captain.—Quite.

President.—In answer to question 7 you say, "In our opinion the most important factors in selecting the site of a cement factory in India are (1) vicinity to the areas from which the raw material is drawn (2) vicinity to important markets and (3) vicinity to the coal fields." Are these arranged in the order of importance?

Mr. Captain.—In my opinion, yes.

President.—I take it that the cost of transporting your clay and limestone would be a good deal heavier than the cost of transporting coal.

Mr. Captain.—Yes. Besides to make one ton of cement we use about 1¼ tons of limestone, whereas to make one ton of cement we require half a ton of coal. Also there is clay in addition.

President.—It is for that reason you regard vicinity to the raw materials as the most important point?

Mr. Captain.—Yes.

President.—In answer to question 10 you allude to the fact that your cement does not command anything like the same price in the market as the imported cement, and you say that this is due to the fact that the imported brands are well known and have established a reputation for themselves. "Engineers and contractors" you say "have used these brands for years and years and have found them thoroughly satisfactory," you mean that there is a certain feeling that Indian cement is not as good as imported cement?

Mr. Captain.—Yes.

President.—Has your company taken any action to overcome that prejudice?

Mr. Captain.—We do our best.

President.—You got a very satisfactory report from the Calcutta Port Commissioners about your cement. Have you got their permission to use this as an advertisement?

Mr. Captain.—This report that they gave us was a verbal report saying that they were satisfied with our cement. We are asking for a written report and when we get that we will probably advertise that.

President.—Have you supplied any cement to the Indian Stores Department?

Mr. Captain.—We have not been very successful with our tenders, though once we had a tender accepted. But we have had our cement tested at Alipore in Calcutta and also in Bombay by the gentleman who tests for the Bombay Government, and we have received very favourable reports and we do advertise those. We have printed and distributed them.

Mr. Ginwala.—Have you got a copy of any recent report?

Mr. Captain.—I haven't got any with me, but I can send you one. * I may add that recently when our Chemist went for England on leave we gave some of our cement to him and have asked him to get it tested by the gentleman who tests for the Admiralty in England. When we get this report we shall distribute this also.

President.—What was running in my mind was this. There is no question at all that at present the Indian cement is cheaper than the imported cement and apparently it is quite as good. If so, it is important to try and bring these facts to the notice of the people who are buying cement, and this is the way in which the industry can most readily help itself and hold its own against its competitors.

Mr. Captain.—We quite see that. But of course all these things take a little bit of time, and the present position, specially of the newer cement companies, is extremely critical. What is likely to happen is this. To-day cement is cheaper in India than anywhere in the world but, paradoxical as it may seem, without protection prices are likely to rise and with protection they are not likely to rise.

Mr. Ginwala.—Would you mind telling me what rate you got from the Calcutta Port Commissioners?

Mr. Captain.—Rs. 32 a ton.

Mr. Ginwala.—And the freight to Kidderpore from your works is about Rs. 12?

Mr. Captain.—Yes.

President.—In answer to question 10 you say "It is only fair to point out however that the present great difference in the markets of Bombay and Calcutta between the price of Indian Cement and Imported Cement is not due entirely to a preference for imported cement on the part of the consumer, but is due in a great measure to the severe internal competition between the Indian manufacturers themselves." What I want to put to you is this. Is not the present price of Indian cement at the ports regulated entirely by internal competition?

Mr. Captain.—I should think so.

President.—If the importation of cement from abroad were entirely prohibited would it make any difference?

Mr. Captain.—Not at present, as far as the price is concerned.

Mr. Ginwala.—You can't say that, you might combine!

Mr. Captain.—If we do combine you may deal with us in the manner suggested in paragraph 86 of the Indian Fiscal Commission's Report?

President.—I am not suggesting that there is not a prejudice for the imported cement, although I hope it will eventually be overcome. All I mean is that, if importation were prohibited, it would not at present affect the price of cement at Calcutta and Bombay.

Mr. Captain.—It would not affect the rates; it would affect our production in the factory. We would be able to produce 50 per cent. more than we are doing just now, and we expect that, if these present low prices continue, the demand will catch up with the supply very rapidly.

President.—At present can protection do anything for you except increase your market to a certain extent?

Mr. Captain.—I agree with you, but I say that the increase in the market will be a great advantage to the industry.

President.—It must be of some advantage, I fully admit; but how much?

Mr. Captain.—Ultimately it would be of great advantage because by the time, say in three years, when the demand catches up the supply, naturally the prices will go up too.

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* Not printed.

President.—I shall come to that point later, *i.e.*, the possibility of an expansion of the consumption.

In answer to question 19 which is "Please give the cost per ton delivered at the factory of the raw materials for each year since the factory was established.........", you say "The cost per ton of limestone is high now, but will go down considerably as soon as we begin to use our Bucyrus shorves." Your present cost per ton both of lime and clay is about equal?

Mr. Captain.—I think you have got it in the statement of costs.

President.—They have been lumped together as "Raw materials."

Mr. Captain.—Roughly speaking it costs us between Rs. ¼ to ⅛ to raise the limestone: clay costs very little, about 6 to 8 annas a ton delivered at the mill.

President.—You say in answer to question 20 "Cement experts of the right type are not easily procurable from England, especially now-a-days when the English cement factories are working 3 shifts a day owing to the increased demand for cement in England." I rather gathered that the cement companies in England were not doing well at present.

Mr. Captain.—My information is—I say this from the last annual report—that the Associated Portland Cement Manufacturers Ltd., had a very good year.

President.—I do not know that I have seen that report, but there was an article in the *Economist* in which they gave figures of the various Cement companies, and the general impression I got was that they were going through hard times.

Mr. Ginwala.—They considered that they were doing very well when they made 5 per cent. Would you be satisfied with that?

Mr. Captain.—I would be very glad to get 5 per cent. to-day! We are not getting even 1 per cent. My own belief is that they are doing very well: in fact I am pretty certain about it. What I have quoted is from a letter received from our agents in England. We asked them to send out a burner from England but they could not send one, and this is the reason they gave.

Mr. Kale.—Is it because they have secured advance orders for one year?

Mr. Captain.—They may have from the British Government, I am not sure about it but one does read in the newspapers that, owing to unemployment in England, the British Government are likely to start a lot of development works, as one of the methods of relieving unemployment, and if they do start this development work they would be using a lot of cement. One of these development works will be the construction of new roads, and that will take up a lot of cement.

President.—In answer to question 27 you say "We get our gypsum by rail from the Punjab and from places near Jodhpur." The freight on this gypsum is fairly heavy?

Mr. Captain.—Yes. It varies from Rs. 20 to 23 per ton.

President.—What is the distance?

Mr. Captain.—I am afraid I can't say. I think the nearest place we can get gypsum from is somewhere in Rajputana, and the freight from that place is about Rs. 18. But I think the gypsum we get from the Punjab is much better stuff, but we have to pay for that a much higher freight. It is very good gypsum.

President.—Have you given us the quantity of gypsum you require for a ton of cement?

Mr. Captain.—It is about 5 per cent. roughly speaking. For one ton of cement we require ·045 ton of gypsum, that is, a little less than 5 per cent.

I may mention one thing about the limestone. In actual practice we have found that we do use more—we are taking steps to see that we use less—but theoretically we require about 1½ of limestone to make a ton of cement. The calculation of the factory was that they had used more. Either their calculations are wrong or they have used more than we should theoretically use at any rate. But this 1½ is theoretical.

President.—Can you tell us what the actual practice is?

Mr. Captain.—1½ tons. It varies, but it averages 1½ tons. The cost figures I have given are the actual cost to the factory during these 6 months.

Mr. Ginwala.—Would you like to check your figures in paragraphs 12B and 13?

Mr. Captain.—I would.

President.—I think it would perhaps be better if you were to see the Secretary and then get into shape what correctly represents your views, because certain consequential alterations will be required.

Mr. Captain.—Yes, I will see to that.

President.—In answer to questions 28 to 31 you say "Our quarry is at present let out to contractors who employ from 300 to 1,000 men. We shall be able to dispense with the contractors in a few months when our Bucyrus shovels are ready to work." These shovels are mainly intended for the limestone?

Mr. Captain.—For clay also.

President.—So that you will be able to dispense with the contractors not only in the case of limestone but also in the case of clay?

Mr. Captain.—Yes, except perhaps for the transport of the clay to the mill. But for the excavation of the clay we shall be able to dispense with the contractors.

President.—But still there will be a certain amount of contractors' labour employed?

Mr. Captain.—Yes, contractors' labour there will be.

President.—In answer to question 33 you say "The General Manager and the Chief Chemist are the only 2 men at present working at the factory who were imported from abroad," but you add "We have also working at the factory 2 Scotchmen who were engaged in India. One of them is only occupying a subordinate position."

Mr. Captain.—I wanted to be accurate. We happened to get them locally and we did not have to import them.

President.—Do you consider that these two posts, or one of them, could be satisfactorily filled by Indians at present?

Mr. Captain.—Not yet.

President.—Neither of them?

Mr. Captain.—No.

President.—So that for the present you have 4 appointments in the factory which must be filled by Europeans?

Mr. Captain.—Yes.

President.—Then there is also the burner whom you are trying to engage?

Mr. Captain.—Yes, we must get a burner.

President.—Can you tell us what these two posts held by the Scotchmen are?

Mr. Captain.—The first one is the Chief Mechanical Engineer. The other one in charge of the shovels, looks after the loading of the limestone at the quarry, and generally hustles the contractors' labour.

President.—It is outdoor work he is doing?

Mr. Captain.—Yes, but he also understands the shovels which nobody before understood except our General Manager.

President.—Do you anticipate that both these appointments will before very long be filled by Indians?

Mr. Captain.—I think in a few years.

President.—In answer to question 36 you say "The total number of Indian workmen employed at the factory is 650. The total wages paid to them every month amount to Rs. 18,000. The wages of Indian workmen vary from about Rs. 300 a month to about Rs. 15 a month." Would it be possible to classify the wages according to the different classes of labour?

Mr. Captain.—I don't think it would be impossible. We had to send our answers early and we had not got all the materials. I think our works will be able to make some sort of classification.*

President.—In answer to question 39 you say "The Indian labourer improves considerably with training. We are informed that the present efficiency of Indian labour at our factory compared with labour in an advanced country like America is about 1 to 6." That, I take it, means that you require six men to do the work that one man will do in a corresponding works in America.

Mr. Captain.—This is the figure given by our General Manager.

President.—Your General Manager is an American?

Mr. Captain.—Yes, sir.

President.—In answer to question 45 you have given us the cost of the Rewah coal at the colliery at Rs. 8 per ton, but for the kiln coal which comes chiefly from the Bengal coalfields you have only given the freight. You have not given us the figure for the cost f.o.r.

Mr. Captain.—Rs. 10-8-0 per ton.

President.—That makes a considerable difference.

Mr. Captain.—But it is much better coal.

President.—Then we come to question 50. "You say it is reasonably certain that the Indian demand for cement will increase very substantially within a short time." Well, I wish I could share your optimism because there is a good deal to be said on the other side. For instance, where is this increased demand going to come from? Is it going to come from Calcutta and Bombay, or is it going to come from up-country?

Mr. Captain.—Chiefly of course from the big towns, but also from up-country.

President.—Let us take the case of big towns. You have already got the big scheme of the Development Corporation in Bombay in full swing. I take it that already their consumption of cement is up to what their average will be for a number of years. Do you anticipate that they require more?

Mr. Captain.—They won't require more. What we do think is that contractors and engineers in India do not understand cement just now. Even in the Presidency towns they do not understand cement. I am not an expert myself, but I say what I have heard from people who do know and it is this, that you can construct buildings of cement much cheaper and better than of brick or stone, and Indian contractors and engineers do not sufficiently understand this. But they are gradually understanding it, and they use more cement now than they were doing before. Formerly the price of cement was prohibitive but with the cheap price of cement they are learning to use more cement. In America and in new countries which had to be developed there has been a great increase in the consumption of cement. In India also the increase in the consumption of cement within the last few years has been extraordinary.

President.—Undoubtedly, so is the increase in the consumption of iron and steel in those countries, but I don't anticipate any expansion of the demand in India for iron and steel on any scale comparable to what took place in America.

Mr. Captain.—I do not know much about the case of iron and steel.

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* See Statement II-6.

President.—The point I am really trying to understand is this. You ask for protection. It is no good to you unless, sooner or later, it increases your price.

Mr. Captain.—Quite so.

President.—How would the increase in the consumption be affected by a rise in the price?

Mr. Captain.—What I anticipate is this. At present, the supply being very nearly twice the demand, we have got to cut the prices to a very great extent. We are selling practically at cost, or below cost. But if the consumption, that is the demand for cement, catches up with the supply, prices will naturally go up which will enable us to earn the ordinary commercial profit.

President.—If prices go up, won't consumption go down.

Mr. Captain.—Prices won't go up very much. They will go up just as much as would enable us to earn a fair profit. If people learn to use cement, they will keep on using cement even if it is slightly more expensive. There is a passage in the Indian Munitions Board Handbook about the Portland Cement Industry by Messrs. Musgrave and Davis, which reads as follows:—"The use of ferro-concrete, comparatively new even in the western world, is extending very rapidly, bridges and heavy structural work of all kinds and even ships being made of it." It will in itself provide a big market, etc.

President.—I know. But you must remember that a certain deduction is to be made from anticipations of that kind published during the war.

Mr. Captain.—That is true.

President.—A good many of these predictions have been falsified, and progress has not been so rapid as was anticipated then.

Mr. Captain.—What happened in America, was that in the year before the war, they made and consumed 17 million tons of cement; during the wer the production dropped and it remained low till 1920. In 1922, the pro duction rose to about 19 million tons and in 1923 the production was 23 million tons.

President.—You have given all these figures in your written statement. My Suggestion is that conditions in India are not comparable to those prevailing in the United States of America.

Mr. Captain.—They are not. But we do expect India to advance: India is advancing.

President.—I hope so undoubtedly, but I think that if people base their expectations on a very rapid increase in the consumption of cement in this country, there is a great danger of enterprises founded on calculations of that kind coming to grief.

Mr. Captain.—The cement companies have got to suffer for that and they are suffering now. What we do expect is that in a few years these anticipations will be realised. Perhaps they have not been realised as quickly as we thought that they would be realised.

President.—In order to take up the output of the Indian cement companies, you want the consumption of the country to go up by more than 50 per cent.

Mr. Captain.—Yes.

President.—What I would like to put to you now is this: are you basing your expectations to any extent on the use of cement in large quantities for irrigation schemes in Northern India and things of that kind?

Mr. Captain.—Partly that: for instance I read in the papers not very long ago that the Central Provinces Government had in view some very large irrigation scheme. Also the general public will be using more cement.

President.—I want you to confine yourself to irrigation for the moment. The Board have received information that the engineers in charge of big schemes in the Punjab have decided not to use cement for certain purposes because the cost, even at present prices, is prohibitive as compared with hydraulic lime. It is for that reason—it is on account of the information we have had of that character—that I want to suggest to you that, if you are to get this great increase in consumption, not only the price must not go up but it must go down. Mind you, I am not putting forward these as my views. I am trying to get your opinion.

Mr. Captain.—My own opinion is this. In fact I am very optimistic about it. I feel pretty certain that the consumption in India will go up very rapidly. It will be used more and more than at present. In a few years when the people learn to use cement, they will be using it practically for every building.

President.—How does the total consumption to-day compare with what it was in 1914?

Mr. Captain.—It compares very well. I have given the figures in my written statement.

President.—Where have you given them?

Mr. Captain.—We have given them in answer to question 50. In 1912, India consumed just over 100,000 tons. In 1920, India consumed about 200,000 tons and in 1923, 340,000 tons. This in itself is a big increase and what we think is—from the way in which we are selling we cannot say definitely what will happen—India will consume about 400,000 tons this year.

President.—Do you happen to know the market price of cement in 1912?

Mr. Captain.—I don't know. I was not then in the business myself. I believe it was very cheap. It must have been sold in Bombay at Rs. 40 or so, but I could not give you a figure with any confidence.

Mr. Ginwala.—It was Rs. 45 to 50 I think.

Mr. Captain.—That is the price to-day.

President.—You base your expectations to some extent on the big increase in consumption that has gone on since 1912?

Mr. Captain.—Yes.

President.—You think that consumption will tend to grow at something like the same rate?

Mr. Captain.—Quite so.

President.—The basis practically being that cement is one of the few articles the price of which has not become dearer in India to-day than it was before the war?

Mr. Captain.—It is said by optimists in the cement trade that the next age is going to be the cement age. All sorts of things are going to be made of cement. As India advances, she will be using cement for all sorts of things; for instance railway sleepers have been made of cement. Supposing all railway sleepers are made of cement, consumption would jump up tremendously.

Mr. Ginwala.—You say that the use of cement is restricted in this country by the fact that engineers do not understand its use. I think that that is hardly an explanation. Is it not a fact that cement is not used in this country, as often as it might be, because it requires a lot of supervision to get the correct mixture?

Mr. Captain.—I was going to add myself that the people who erect buildings—I mean the contractors—do not understand themselves how cement is to be used.

Mr. Ginwala.—Even if you employ an expert engineer, he cannot be there the whole time, and he cannot see that they take the exact quantities of bricks, sand, cement, and so on. Is not that a real difficulty in this country?

Mr. Captain.—Not much. I think that it is very easy. I have seen myself a lot of cement work done by quite ordinary people. They have done it quite well.

Mr. Ginwala.—I don't suggest that it requires extraordinary intelligence, but our Indian labour is casual and requires constant supervision. If any mistake is made in the proportions of cement, lime and other things the whole building may be seriously injured, is not that so?

Mr. Captain.—That is so. I was going to add that cement is not used as much as it might be, not only because engineers do not understand the use of it, but also because contractors also do not understand how to use it.

Mr. Ginwala.—They may understand as much as they like. Is not supervision the chief difficulty?

Mr. Captain.—India has advanced far enough to-day to provide adequate supervision. Of course you must have ordinarily good supervision, but you require good supervision for doing anything of importance to-day.

Mr. Ginwala.—Is it not a fact that any mistake in the mixture might lead to serious consequences?

Mr. Captain.—If they don't make the mixture properly, I suppose it would. But the mixture is very easy to make. It becomes a mechanical job. You use so many parts of cement and so many parts of sand. I am not a technical man. But I think that it is very easy. I have seen a lot of cement buildings erected at our own factory and men whom you would not consider particularly highly qualified have supervised the erection of these buildings and have done it quite satisfactorily. The difficulty is there but we are overcoming it. I am told by contractors in Bombay that they are using much more cement to-day than they ever used before.

President.—Do you think that the difficulty of supervision will be gradually overcome?

Mr. Captain.—It is undoubtedly a difficulty and it is being overcome.

Mr. Ginwala.—Then there is the question of price. How would you represent the difference between lime and cement in terms of money?

Mr. Captain.—I should not like to give an opinion. At present-day prices I have heard it said that cement is cheaper to-day.

Mr. Ginwala.—Take a hundred cubic feet of work. Supposing it is built in lime, and supposing it is built in cement; what would be the difference between the two?

Mr. Captain.—I don't think that I can express any opinion on that.

Mr. Ginwala.—That is rather an important point.

Mr. Captain.—Any engineer can give you that information. Of course I can get you that information.

Mr. Ginwala.—So can we. Have you considered that point?

Mr. Captain.—I am sorry I have not. I have only been told that it is cheaper to use cement. I can only rely on what I have been told.

President.—If the lime is made on the spot, and if the cement comes from a distance of 500 miles, it would make a considerable difference.

Mr. Captain.—In Bombay cement is cheap to-day, and I should not be surprised if it is cheaper to use cement than lime.

Mr. Ginwala.—There are many factors which enter into this consideration. What is cheap at first may be really more expensive in the long run.

Mr. Captain.—Quite so.

Mr. Ginwala.—I want to know whether, being in the cement business, you have worked out the figures.

Mr. Captain.—I have not worked out the actual calculations. I have been told that cement is cheaper. Even if it is more expensive at first, it is cheaper in the long run.

Mr. Ginwala.—What would be the effect of climate on ferro-concrete?

Mr. Captain.—The Indian climate is quite all right for it.

Mr. Ginwala.—Take the question of roads. We have experimented in Burma with cement roads, and we don't find them a great success for the reason that, owing to the variations in temperature— roads are always exposed to the sun and rain—we found that there were cracks in them which could not be repaired. As you know in America lots of roads are made of cement.

Mr. Captain.—Surely there are greater variations in America than there are in Burma.

Mr. Ginwala.—I am asking you whether you admit that this is a disadvantage.

Mr. Captain.—If that is so, it is a disadvantage.

Mr. Ginwala.—Is it, or is it not, a disadvantage?

Mr. Captain.—I don't know what happened in Burma. I think that the sort of variations that we get in India or Burma is not such that it will make the use of cement impossible. There may be the difficulty of supervision. When those cement roads were made, perhaps the mixture was not all right, and that may be why the roads cracked. Otherwise, they should not crack. In Bombay they are making cement roads. They have just started that.

Mr. Ginwala.—If the price of steel goes up, will that not affect the use of cement?

Mr. Captain.—You mean people will use cement instead of steel?

Mr. Ginwala.—You require a considerable quantity of steel in re-inforced concrete construction. If the price of steel goes up, would it not affect you?

Mr. Captain.—I don't know exactly what is the exact proportion of the cost of steel in a ferro-concrete construction, but I should imagine that it is not a substantial portion of the cost. The substantial item is cement itself.

Mr. Ginwala.—Do you think so?

Mr. Captain.—I should think so.

Mr. Ginwala.—In your opinion the price of steel going up will not affect the use of cement considerably?

Mr. Captain.—I should not think so.

President.—If ferro-concrete were substituted for steel, it might benefit the cement industry? ✓

Mr. Captain.—Yes, it would.

President.—That was what Mr. Stuart-Williams, Chairman of the Calcutta Port Commissioners, told us. If the price of steel went up they would at once explore the extent to which they could substitute ferro-concrete buildings for steel frame buildings.

Mr. Ginwala.—It may have the opposite effect. It may make the use of cement more common. On the other hand, take the case of buildings (I don't mean ferro-concrete buildings) where a considerable quantity of cement is used along with steel. If the price of steel goes up, will not people take to wooden beams and things like that and lime?

Mr. Captain.—As I told you before, I am not an expert in these matters, but my information is that wood would be much higher in cost. In fact there would be no comparison between the prices of cement and wood.

Mr. Ginwala.—We were told by some Engineers that that would be the effect.

Mr. Captain.—I am very surprised to hear that a wooden structure would be cheaper than a cement structure.

Mr. Ginwala.—Some engineers gave that opinion.

Mr. Captain.—They ought to know better.

Mr. Kale.—When you speak about the extension of the demand for cement in India, are you referring also to an increase in demand in the districts?

Mr. Captain.—Yes.

Mr. Kale.—Some years back, the use, say, of galvanised iron sheets was not very common, but when the utility of the sheets was realised by the public, the cost of these sheets went down, and since that time the use of these sheets has been on the increase.

Mr. Captain.—Quite so.

Mr. Kale.—Do you think that there is an analogy between the use of cement and the use of these sheets?

Mr. Captain.—I should think that there is an analogy. Exactly the same thing is likely to happen in the case of cement. People in the districts, just like the people in Bombay, are getting more intelligent. As they learn to appreciate the use of cement, they will use more cement. As a matter of fact they are using more even to-day.

Mr. Kale.—Is that your experience?

Mr. Captain.—Yes, we get orders from all sorts of outlying places.

Mr. Kale.—With regard to the difficulty of supervision: do you think that this difficulty of supervision is experienced very largely in the case of important and complicated works like the docks, for instance?

Mr. Captain.—Yes, that is so.

Mr. Kale.—Not so in the case of ordinary buildings?

Mr. Captain.—Not so much.

Mr. Kale.—Therefore the difficulty of supervision will not be very great in these instances. As a matter of fact in larger towns already many official and non-offical buildings are being built of concrete and there is no difficulty.

Mr. Captain.—Not as far as I know. I have spoken to several contractors in Bombay. They are using any amount of cement just now and they don't seem to find much difficulty. Even these contractors don't use much. They are a bit nervous. They are getting over it now. They are beginning to understand and they are getting more and more competent as years pass by. Things will improve still more. As far as you can see in Bombay and places like that, the difficulty of supervision practically does not exist.

Mr. Kale.—In the larger towns, it does not exist. In smaller places, cement is not likely to be used in very important works. It will be used only in smaller works. Therefore the difficulty of supervision would not be very great.

Mr. Captain.—In course of time there would be sufficient skilled labour available in the mufassal even for important works.

Mr. Kale.—As regards the difference between the price of cement and lime, will not the use of cement depend on its price?

Mr. Captain.—Yes, it will.

Mr. Kale.—Supposing lime is easily obtainable, the natural tendency is to use lime?

Mr. Captain.—Yes.

Mr. Kale.—If the price of cement goes down, and if cement is within the easy reach of the common people, naturally cement will be substituted. It is more or less a question of price.

Mr. Captain.—That is our expectation. As I said, I don't understand these things myself, but I have been told by people who do understand cement in India that they would simply not use lime.

President.—You have mentioned about the cement roads in Bombay. If there is to be a rise in the price of cement, it is doubtful whether they will use cement at all.

Mr. Captain.—I am glad that you have mentioned it. The Bombay Corporation are now paying for their cement 100 per cent. more than the market price.

President.—Is that under an old contract?

Mr. Captain.—Yes. At present prices, they can buy much cheaper. Even if the price of cement were to increase, I have no hope that it will ever reach the figure which the Municipality is paying.

President.—In reply to question 52, you say "No doubt, we are more easily able to compete against foreign cements in all markets which are at distance from the ports, but our own view is that at present these markets do not take any substantial quantity of imported cement." Of course you have only been working for the last 8 months.

Mr. Captain.—Yes.

President.—Of the 23,000 tons you produced within the 8 months, would you give us the approximate figures of the quantities that went to Calcutta and Bombay and the quantity that you sold upcountry?

Mr. Captain.—As far as our own cement is concerned, a very small portion has gone outside Bombay and Calcutta. In the Bombay Presidency, places like Poona, Belgaum, Sholapur, etc., have taken a fairly large quantity.

President.—From your point of view, are these markets as difficult as the Presidency towns?

Mr. Captain.—In the markets of the United Provinces, we have a great advantage.

President.—I am asking you only at present about places you yourself mentioned, *viz.*, Poona, Belgaum and Sholapur in the Bombay Presidency. These would not be markets in which you find it easy to compete.

Mr. Captain.—No.

President.—What I wanted to know was what proportion went to the Central Provinces and the United Provinces?

Mr. Captain.—A very small proportion, not worth talking about. As far as we are concerned, this much has to be said. We have only been selling properly during the last six months. The United Provinces market has not been properly developed but we do expect to sell more. Perhaps it has so happened that we have pushed our sales in Bombay and Calcutta better. We have also sold to the E. I. Railway and E. B. Railway for consumption in the mufassal towns.

President.—They require that the cement should be delivered at various stations?

Mr. Captain.—Yes.

President.—It is quite conceivable that a state of things might arise in which it would pay the railway companies to buy the cement needed upcountry from the Indian companies, and import the cement required for the ports.

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Mr. Captain.—Quite.

President.—However I don't want to spend more time over that. In answer to question 53, you say "Export of cement from India is probable in the near future to Ceylon, Singapore, Java and to East Africa, provided freight is obtainable at reasonable rates." Is not there another question which has got to be solved before you can begin to think of the export trade? What about packing?

Mr. Captain.—That is quite true. There is no doubt at present a prejudice against cement sent in bags to places like Burma.

President.—Is it not more than a prejudice?

Mr. Captain.—Probably these people have never tried really good class Indian cement sent in Indian bags. If they try it, this prejudice will probably disappear. We ship cement in bags. We have not got the barrels. As an experiment we did ship a little cement in bags. It arrived there in quite a good condition. There was no question about quality having deteriorated or anything of that description. It was a question of freights.

President.—When you are trying to conquer an export market, is it not rather necessary to conform to the prejudices, if they are prejudices, of the consumers?

Mr. Captain.—We are trying to get barrels. We are in communication with a firm who say that they are going to quote us prices.

Mr. Ginwala.—What firm is that?

Mr. Captain.—Spedding & Co. The Stores Department in Simla put us in communication with that firm. If barrels cannot be made in India, we cannot ship in barrels. I think that they can be made. There is another firm trying to make barrels. I think Messrs. Allen Brothers are interested in it.

President.—My point is that the export trade will not develop unless the Indian manufacturers exert themselves, and arrange for export in barrels.

Mr. Captain.—What would be the good of Indian companies exerting themselves unless they get favourable freight rates?

President.—Then, you don't consider that the present freight rates are reasonable?

Mr. Captain.—No, they are not.

President.—Then the passage in your written statement should perhaps be, "Export of cement . . . . will not develop unless we got reasonable freight rates."

Mr. Captain.—That would be the correct way of putting it.

President.—Can you tell us what your freight rates are at present to any of these places?

Mr. Captain.—The freight from Bombay to Ceylon is Rs. 12 a ton which is the same as from England to Ceylon. The freight from Calcutta to Rangoon was Rs. 18 a ton, but it is now Rs. 12 the same as from England to Rangoon.

President.—Do you think it is likely that these freights will go down to what you consider a reasonable figure?

Mr. Captain.—I understand that the Government of India are making some enquiry about the coastal trade. They have got a sort of Committee or some such thing.

President.—The question has come up again and again. So far, nothing has happened. Your view is that, if freight rates remain at their present level or higher, there is not much chance?

Mr. Captain.—Very little chance. We can get to Rangoon. I don't count Rangoon as a foreign port.

President.—From the nature of the case, so long as freights from Indian ports to destination are the same as from British ports to destination, the British manufacturer must have the advantage because he is much nearer the port in his own country. You have got to pay railway freight to either Calcutta or Bombay. There is no corresponding charge in the case of the British manufacturer.

Mr. Captain.—Quite so, but I may say this. At the present moment we are content to sell at a loss, whereas the British manufacturer may not be content to sell at a loss. Probably he will want the ordinary profit.

President.—He may want it, but will he get it?

Mr. Captain.—He does. There is a big cement combine in England, the Associated Portland Cement Manufacturers. Their last report showed that they did quite well. They were the people who put up the factory, in India, at Japla.

President.—In answer to question 53, you have given us f. o. b. prices As far as I can see, it works out to very much the same as the information we got from elsewhere. Can you tell us where your information came from? The reason why I am asking you this is not that I distrust your figures at all, but that we want to ascertain the sources from which we can get information on this point. If you have taken it from a source which you are not at liberty to disclose, you need not of course mention it.

Mr. Captain.—I can say this that it is from a very good source.

President.—You would rather not go beyond that.

Mr. Captain.—I would not. It was a quotation for a very large quantity of cement obtained from a very good class firm.

President.—Does that answer apply to the other years?

Mr. Captain.—The other figures I got from an American paper. It is an article entitled "British Trade in cement" by Alfred Nutting. The article is in a paper called "Concrete." There he has given the export price f. o. b. I read the extract :—

"Compared with the first six months of 1921 exports of cement in the current period show an increase of 54 per cent. and of 52 per cent. for 1922. The fall in average export price has been even more marked than was the case with imports declining from £6-5-9 per ton in the 1921 period to £3-12-7 a year ago and to £2-14-10 per ton this year, the last named quotation being lower than the import price. In June 1923, the average export rate declined further to £2-12-9 per ton."

This is where the figure was got from.

President.—From the price you have given in the first part of your answer to question 57 the inference is that imported cement can be sold in Calcutta and in Bombay somewhere in the neighbourhood of Rs. 60 a ton?

Mr. Captain.—About Rs 60.

President.—Rs. 60 is not an unfair figure to take as a round figure?

Mr. Captain.—Quite so.

President.—You have not answered question 59. "How far are the quotations in the Trade Journal in accord with the prices at which transactions actually take place?" The reason why we put that in was that, in our steel enquiry, we were informed by the Tata Iron and Steel Company that in accordance with their contracts with the engineering firms in Calcutta their business was done on the basis of the trade paper quotations with certain reductions agreed on beforehand. What we wanted to find out was whether there was any custom of that kind in the cement trade.

Mr. Captain.—Nothing.

President.—It is always difficult for the outsider who is not in the business to know what weight should be attached to those quotations. Have you any views about this yourself? Do you think that, on the whole, trade paper quotations are usually on the high side, *i.e.*, rather above the prices at which business is actually done?

Mr. Captain.—Is there any particular trade paper you are referring to, or do you refer to the statistics published by the Indian Statistical Department?

President.—I am referring to the British Trade papers.

Mr. Captain.—I am afraid I am not familiar with these. Probably the prices would be a bit higher, I should think.

May I just say this. I sent an answer to supplement one of the questions. I had not got certain information and we cabled to England to find out the price of cement for home consumption and we find that it was from £2-18 to £3 per ton, which is more than the f.o.b. price of England cement for export.

President.—That is what one would expect, especially when the prices have dropped in India. Import prices have got to drop also.

Mr. Captain.—It is a question of surplus production to be sold at cost or a little more than cost.

President.—In answer to question 66 you say "The Indian manufacturer is certainly at a disadvantage as compared with the foreign manufacturer as regards the cost of plant and machinery" and then you have explained why this is so. Your factory was put up not long ago. Have you got any information showing what it would have cost if erected in England, *i.e.*, a plant with the same output?

Mr. Captain.—If it had been erected at the same time it would have cost a terrible amount of money. A factory was erected in England almost exactly the intended size of our factory, and I think it cost about a million sterling and the company went into liquidation. The prices were very high and people never expected that prices would drop down with the rapidity with which they have come down—a thing entirely unexpected in England as well as here.

President.—As long as machinery and so on have to be imported the cost of a factory in India would be higher than in England. Is it possible to ascertain the percentage of increase in the capital cost which construction in India entails as compared with construction in England. Would you say it was 20 per cent. more?

Mr. Captain.—I was going to give an answer, but it was not based on any calculation. I should say 20 per cent. but I would not ask you to attach too great importance to my answer.

Mr. Ginwala.—But cannot you calculate that?

Mr. Captain.—I will have to calculate the exact freight, duty and erectors' charges. We have to get our erectors generally from Europe to erect the factory. Generally speaking, to get competent supervision from abroad is much more expensive. All these factors will have to be taken into consideration.

Mr. Ginwala.—The main factors would be freight and duty and the locking up of the capital for a much longer period. Cannot you calculate that? You have got only four or five items, and on page 33 you have given the cost of machinery.*

Mr. Captain.—I did try to calculate so far as our machinery was concerned, but the difficulty was that a lot of machinery came when Burn & Co. were managing agents. They did not keep separate accounts, and it was difficult to calculate the different items separately. We have got separate accounts after Mathradas Goculdas & Co. became managing agents. I should think about 20 to 30 per cent. would be very near the mark.

Mr. Kale.—Would it include everything?

Mr. Captain.—Yes. I am speaking off-hand but I think between 20 and 30 per cent. would do.

President.—Please refer to clause (*b*) of the question 66, which alludes to the disadvantage the Indian manufacturer is under in having to pay high wages to labour from abroad—using the term labour in the widest possible sense. In the case of your factory, on an output of 100,000 tons, the extra cost would be a very small percentage even supposing that you are paying the Europeans twice as much as the Indians.

Mr. Captain.—We are paying more than that. We are paying our chemist Rs. 1,500 and our assistant chemists get Rs. 250—300.

President.—If you want to get good results, you cannot cut salaries much. You cannot afford to underpay people who are doing really responsible work.

Mr. Captain.—Even in England the salary of a chemist is only about £500 a year. You would not expect us to pay a higher salary to an Indian than is paid to an Englishman in England.

President.—You may have to. Even so, taking it on the basis that you can fill these appointments sooner or later by Indians on half the present salaries, the total amount saved per annum would work out to a very small percentage per ton of cement.

Mr. Captain.—If our factory is run at full capacity it would make a small difference.

President.—After all this extra sum between Rs. 20,000 and Rs. 30,000 has to be divided by 100,000.

Mr. Captain.—There is not the slightest chance of our factory working to its fullest capacity under present conditions. Even on an optimistic basis it would take about 3 or 4 years.

President.—You say that labour is cheap in India, but it is at present inefficient as compared with English or American labour. The efficiency of Indian labour is bound to improve as time passes. Comparing your costs as you have given them with labour cost of the British manufacturer, as given in the figures you have supplied, the British manufacturer's cost is 80 per cent. more than your labour cost.

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* See Statement II-7.

Mr. Captain.—Of course that is the cost figure for 1921 and probably they have come down since that year; for wages have come down in other industries also. Moreover the cost figure there is high because the price of coal is very high there.

President.—I converted the British figure into rupees and it comes to about Rs. 4·85 a ton as compared with Rs. 2·65 a ton so that, even if it has come down substantially, it may still be higher than your figure. The inference is that the labour cost of your cement is not greater than the corresponding cost abroad.

Mr. Captain.—I would like to say one thing. We cannot know exactly how far our cost sheet is made exactly on the same basis as the cost that we have taken from the paper "Engineer." We have included the labour costs in various heads: for instance "factory labour" is down there and that is not the only labour. Then there is the general supervision and local office charges. Probably they have taken the wages of all the lower paid men in the factory as "Factory labour" and the pay of all the superior officers they have taken in this figure of Rs. 70,000.

President.—That will clearly come under "superintendence."

Mr. Captain.—In factory labour as you say you might use 'labour' in a broad sense and put your chief chemist as well as General Manager in the category of labour. Here it is not included. I believe we have included all sorts of figures in the Rs. 70,000 which should have been taken in factory labour. If you take it as a whole, then that would not be cheaper than the English cost.

President.—I shall come to that later. In answer to question 66 *(f)* you say "We have shown that the freight from our works to Bombay and other ports in India is higher than the freight from England to the Indian ports." Do you consider that the Indian Railway freights are higher than the corresponding railway freights in other countries?

Mr. Captain.—I have no definite information on that point.

President.—If you will take a note of the point, possibly your American Manager may be able to give some information.

Mr. Captain.—He said that the freights are higher in India.

President.—It would be useful if you could give definite information. It is just possible he may know approximately what rates for corresponding distances are likely to be in America.

Mr. Captain.—Yes.*

President.—I gather you get lower freight rate to Calcutta because your cement travels over the E. I. Railway only, whereas to Bombay it goes by the E. I. Railway to Jubbulpore, and onwards by the G. I. P. Railway. That of course is a common feature of railway freight charges. A railway administration will charge a low rate when there is a long lead over its own lines. Possibly it may make a difference when Government have taken over both the E. I. Railway and the G. I. P. Railway. The contract with the E. I. Railway expires on 31st December this year and that with the G. I. P. expires on 30th June next year.

In answer to question 69 you say, "Our factory is quite large enough to ensure economic production."

Mr. Captain.—It is practically the largest factory in India.

President.—Except perhaps the Dwarka Cement Company?

Mr. Captain.—Yes.

President.—Are you in a position to give figures of the output of typical firms in America or in England?

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* Statement III (1).

Mr. Captain.—The biggest plant here is a two-kiln plant. There are works in America which have got as many as 16 or 20 kilns, but in England a three-kiln plant would be considered a good big plant. I think our factory would be considered a good sized factory in England, but I do not think it would be considered so in America.

President.—From your answer to question 72 it appears that part of your machinery came from England and part from America.

Mr. Captain.—Part also from Denmark—Copenhagen.

President.—The crushers came from America, the cement-making machinery came from Denmark and the rest from England.

Mr. Kale.—Can you combine different sets of machinery in this way?

Mr. Captain.—The power plant and the boilers came from England and the Turbo-Generators also. We got the cement making machinery from Denmark.

Mr. Kale.—Why did you prefer that?

Mr. Captain.—I think Burn & Co. ordered that. Messrs. F. L. Smidth & Co. are a well known firm: they have supplied machinery to Bundi, Katni and the Punjab Cement Companies. I think all the plants to-day working in India have got cement making machinery either from Messrs. Allis Chalmers of America, or Messrs. F. L. Smidth, except the Sone Valley Cement Company which was erected by the Associated Portland Cement Company. Their machinery came from England. One of the gentlemen who floated our company was in charge of the Katni Works first, and it might be that he got the machinery from Messrs. Smidth, because he had previously used it at Katni.

President.—In answer to question 78 you give the other miscellaneous assets on your block account as Rs. 11,83,624.

Mr. Captain.—I would like to point out that this Rs. 1,26,84,800 is not the correct figure. As a matter of fact the factory has cost us more, but for the purposes of argument we may take this figure. The reason why this was omitted was this: I asked my accountant to give the figure and he did not include the interest on debenture loan, and certain other figures.

President.—Does this item of miscellaneous assets, Rs. 11·83 lakhs, include any debit to profit and loss?

Mr. Captain.—Supposing we take it like this. The factory was ready to work on the 1st January, 1924 and it borrowed Rs. 40 lakhs on a debenture loan on 1st January, 1922. Interest on the debenture loan from 1st January, 1922 to 1924 would go towards capital account.

President.—What you mean is that instead of paying the debenture holders you spent the money on completing the factory?

Mr. Captain.—Yes.

President.—The debenture interest will appear as a liability on the one side and the factory will appear as an asset on the other. I understand that the figure you have given includes debits of this kind, and includes only concrete assets.

Mr. Captain.—Yes. It represents chiefly the water scheme, railways, roads, sanitation, etc. They are all concrete assets.

President.—To go on to the point you are making, is it your submission that Rs. 33 lakhs and Rs. 75 lakhs, the figures given for buildings and machinery, are less than the amounts actually spent?

Mr. Captain.—Yes.

President.—How much less?

Mr. Captain.—If you take the Rs. 33 lakhs it is less by about Rs. 9 lakhs. My accountant made a mistake when he gave these figures. As a matter of fact the cost is more.

President.—You wish to add to the cost interest on the money whilst the buildings and machinery were under construction. That he has not added?

Mr. Captain.—He has not added for a period. He omitted to take into account certain sums shown as advances to contractors because the account is not completely liquidated. The total sum he has omitted comes to Rs. 9 lakhs.

President.—It is rather important to get accurate figures as a good deal depends on them.

Mr. Captain.—This is what he has omitted.

President.—You estimate in answer to questions 89 and 90 that the present cost of erecting your factory as compared with the cost at the period at which it was actually put up, would be 20 per cent. less.

Mr. Captain.—Yes. I might have said it was less. But you will see from my answer to question 82 that this Company made a big profit in exchange.

President.—But for that the difference would be much greater?

Mr. Captain.—It would be much greater; about 35 or 40 per cent.

President.—I notice that in your answer to question 95 the estimate of British cost makes no provision at all for packing, whereas your packing cost is about 25 per cent. of your works cost. This high cost of packing is, I think, common to all statements of expenditure we have seen.

Mr. Captain.—Because our jute bags are very expensive.

President.—How does the British manufacturer pack the cement which he sells in England?

Mr. Captain.—In cloth bags, and on the Continent of Europe and America cement is sold in paper bags.

President.—This packing cost seems to me a very serious item in the Indian cost.

Mr. Captain.—Yes.

President.—Is it your view that it is inevitable?

Mr. Captain.—Yes, Sir, because cement has got to travel such long distances in India, and even with our present bags we do get complaints from people. I don't think we can at present afford to use cheaper bags. I may say we have, as a matter of fact, got out a few paper bags to give them a trial, but I do not anticipate that it will be a success.

President.—What is the practice in America?

Mr. Captain.—Paper bags. What happens there is that cement works are situated all over America, so that practically they never travel more than, say, 150 or 200 miles. Then again in India cement might have to be stored in godowns in Bombay and then handed out. So it is handled first of all when it is unloaded, then it is handled when it is put in the godown, then again when it goes out of the godown and so on.

President.—The British cement that comes to India comes in barrels. Can you give us an idea of the cost to the British manufacturer of packing his cement in barrels?

Mr. Captain.—I will obtain that figure for you.*

President.—If you can, it would be distinctly useful. Because *primâ facie* it must cost them much more than packing in bags.

Mr. Captain.—I should think so.

President.—I was quite unprepared for the figure actually given for the cost of packing cement in India. It is extraordinarily high compared with the total price that you are getting.

Mr. Captain.—Of course we have a system in India that if the bags are returned to us in good condition, we make a good allowance to the purchaser, but somehow or other the customer will not return the bags.

Mr. Ginwala.—How often do you use them?

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* See Statement II-2.

Mr. Captain.—In our own case we have never used them more than twice because we have never had an opportunity of using them oftener. It all depends on how the man uses the bags before he returns them.

Mr. Ginwala.—Have you any real hope of reducing the cost of bags?

Mr. Captain.—That all depends on the jute price in Calcutta.

President.—The trade is fairly prosperous. I do not know that there is any great chance at present of a substantial fall in the price of jute.

Mr. Captain.—I should think so.

President.—It seems to me a rather serious matter, but I must leave it at that. I have tried to make a rough comparison of your works costs with those you have given us of the British manufacturer. The British cost of raw materials is given as only 1 shilling per ton. It looks to me as if the writer of the article had deliberately left out certain items of expenditure, and given only the labour cost of handling materials. It might be difficult to give an average figure for transport and other costs.

Mr. Captain.—They may be very favourably situated and the situation may be against the hill side, and they have all these mechanical contrivances at work which makes it very easy for them to handle the materials.

President.—On the figures given you have great advantage in the cost of fuel.

Mr. Captain.—I am told that the cost of coal in England has gone down to about half the figure given.

President.—I don't think the fall is as great as that.

Mr. Captain.—I had a conversation with the Managing Director of an important cement company in England when he was in Bombay, and he told me that his price of coal worked out at much less than what we were paying for our coal for the kilns.

President.—Did he control his own colliery?

Mr. Captain.—No. He was buying in the open market. It was a factory owned by the Smidth people. They have got a factory in England.

President.—Do you happen to know their distance from the coal?

Mr. Captain.—Not far. I think the works are on the Thames. Carriage by water I expect makes it very cheap.

President.—In Form II you have included in one item gypsum and stores. Can you separate the gypsum from the rest of the stores?

Mr. Captain.—Easily.*

President.—It would be useful to have it. I notice that you are spending nothing at present on repairs and maintenance of buildings and plant. But that blissful condition of things will not last very long! Have you any idea what the cost per ton of cement of repairs and maintenance is likely to be?

Mr. Captain.—I am afraid I have no idea.

President.—It is evident that different companies have put different interpretations on certain items in the Form. Take item 6—Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc. Your figure is quite small—one rupee a ton. Under that head another company's figure is less than a third of a rupee, while a third company has given Rs. 4·68 per ton. In your case have you to pay municipal taxes at all? What are the chief items that make up the total of Rs. 23,000?

Mr. Captain.—I believe that the chief item is probably insurance; then we have got to pay an amount for our leases and I think we must have taken some wages for work going on down there—masons and things of that sort.

President.—Does the figure under the head "General, Services, etc." cover the salaries of the Manager and the Chief Chemist?

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* Gypsum Rs. 39,406·95. Stores Rs. 44,039·42—See Statement II-3.

Mr. Captain.—Yes. My accountant drew my attention to the fact that a lot of wages for factory labour has been included in this statement.

President.—Of what kind of people?

Mr. Captain.—We have got a lot of clerical staff down there; we have got an Electrical Engineer who gets Rs. 300 a month. I had better explain what happens at our factory. We send out money to pay the labour from Bombay. We got two budgets, one for the superior and the other for the factory labour. It is the superior labour which is included in the "General Services." They are people who get amounts like Rs. 150 or Rs. 100 and more; they are all included in that.

President.—We will remember that there may be a certain transference between these two heads, but I don't know whether it is of very great importance. The curious thing is that your factory labour and general services together account for only a little over Rs. 5 a ton of your factory cost, *i.e.*, about 16 per cent. of the total expenditure. The principal items in the cost statement are fuel and packing.

Mr. Captain.—In a cement factory the kiln fuel is always a big item.

President.—I quite recognize that. Turning now to your answer to question 96 you say that the depreciation allowed by the Income-tax authorities on Roads and Railways is 10 per cent. Surely you must be using 'Roads' in some technical sense.

Mr. Captain.—These are figures that were really given by a firm of Chartered Accountants who are very experienced in making up the accounts of Cement companies.

President.—But I take it that roads are not of very great importance to your concern. For ordinary roads such as you use clearly 10 per cent. would be ridiculous.

Mr. Captain.—As a matter of fact we have made a road from Jukehi to our factory, but the cost of maintaining it is so heavy that we have given up repairing it.

President.—But that would go under repairs and not depreciation. I thought the term 'roads' was used in a technical sense because I cannot imagine that on an ordinary road depreciation to that extent would be charged.

Mr. Kale.—Do the Income-tax people actually allow 10 per cent. on your roads?

Mr. Captain.—That is my information.

President.—Have you paid any Income-tax yet?

Mr. Captain.—No.

President.—In answer to question 97 (*a*) you say "The total sum required annually for depreciation at Income-tax rates on the total block account comes to Rs. 7,55,746." Does 'Other Assets' include your electrical and water schemes and things like that, because it struck me as a rather high figure?

Mr. Captain.—Water scheme 7 per cent. and the Railways would be 10 per cent. The Railways are included in 'Other assets.' I have got the figures for depreciation specially worked out.

President.—There is another point about depreciation, *viz.*:—the replacement cost. The replacement cost is a good deal less than the amount you actually spent. Would it be fair to calculate the depreciation by taking the figure you have given as the present-day cost of putting up a factory, and applying to it a 6¼ per cent. rate?

Mr. Captain.—Yes, that is so.

President.—In answer to question 100 you say that on your present output you require about Rs. 8 lakhs working capital and for the full return you require about 12 lakhs.

Mr. Captain.—That is the estimate. We have never worked to our full capacity.

President.—We asked you for figures for two of the items that go to make up the working capital, one is the stock of finished goods, and you say your average value of stock is Rs. 2,12,000, while your stock of coal and spares comes to Rs. 1,27,000. That comes to about three and a half lakhs in round figures altogether. In addition, there must be outstandings. Can you put a figure on these?

Mr. Captain.—Normally Rs. 2 to 3 lakhs.

President.—It will bring you up to Rs. 6 or 7 lakhs.

Mr. Captain.—It is a very extraordinary thing, but even when we are selling to a Government Department by the time our bill is passed and payment made it takes quite a few months.

President.—A working capital of 8 lakhs means about 7 months' output? You say that one month's output costs about Rs. 1,21,000?

Mr. Captain.—Excluding overhead. I may tell you that this is the actual experience with our working capital. I think it was 6 lakhs: just before I came over here we had to borrow Rs. 60,000. I know we are still living from hand to mouth. I know that we want Rs. 8 lakhs to run our factory comfortably. Of course because we are a new factory we have got to encourage our consumers. We don't press them very much for payment. But if you are doing very well you would press them.

President.—In answer to question 107 (*ii*) you say "According to the Articles of Association, the Managing Agents are entitled to Rs. 51,000 a year and ten per cent. of the profits." Do they get Rs. 51,000 *plus* 10 per cent.?

Mr. Captain.—That is what they get under the Articles of Association.

President.—Are you quite sure? It might be 10 per cent. on the profits, subject to a minimum of Rs. 51,000.

Mr. Captain.—It is Rs. 51,000 *plus* 10 per cent.

President.—It seems to me that these are liberal terms.

Mr. Captain.—That is so, but I may tell you as a matter of fact Messrs. Mathradas Goculdas & Co. have not got a pie from that. I would like to make that clear.

President.—Rs. 51,000 in addition to the 10 per cent. profit is rather high.

Mr. Captain.—In the case of Bombay Mills, the rate of remuneration is 10 per cent. Sometimes it goes as high as 12 or 12½ per cent.

President.—In reply to question 114B you say "But what is the good to a country of machinery which is not working and which cannot work because of the importation in the country of foreign cement." There is only a very small part of the machinery that has been idle on that account. It does not amount to more than 50 per cent. of the machinery altogether. That is the highest I can possibly put it at.

Mr. Captain.—I should like to explain it a little. Taking a cement factory, supposing you don't want to work it to its full capacity, you have got to produce a certain amount. If you produce less, your cost comes to an unreasonable figure.

President.—My point is this that the present state of affairs is due not to the wickedness of the foreign manufacturers, but to the wickedness of the Indian population who decline to use your cement.

Mr. Captain.—It would help us a great deal if the Indian factories could produce 113,000 tons more than they are producing to-day.

President.—It would be of some help no doubt.

Mr. Captain.—It would just enable us to live for three or four years.

President.—I put it to you frankly that unless you are right in anticipating a very rapid and substantial increase in consumption, I don't see how all the factories are going to live. Even on the hypothesis that the importation of foreign cement is to be prohibited by law—even so it is obvious that there must be a considerable expansion of consumption to keep all the companies alive.

Mr. Captain.—Judging by the past year or two, I would suggest that there is reason to believe that there will be this expansion. The price of cement will remain at the present level. Even if you prohibit the importation of foreign cement, prices are bound to be low.

President.—It may not be so in all markets. All I would suggest at this stage is that you are putting your expectations rather high.

Mr. Captain.—After 10 years, in Canada the consumption went up by 1,400 per cent. Is it unreasonable to expect that it will go up 50 per cent. in India in 3 or 4 years?

President.—Is it reasonable to assume that you are going to see industrial progress of India on a scale comparable to what takes place in a new country being opened up? India is not a new country. It is a country which has already got an old civilisation with a very dense population and its people are very poor. On that basis, I am afraid, it is not much use seeking American and Canadian analogies.

Mr. Captain.—Even if you take the actual figures of consumption of India, considering the size of the country and its population, it is reasonable to assume that India will be using cement much more than she does now. Japan is to-day consuming 2½ million tons with her population.

President.—Japan is a nearer analogy.

Mr. Captain.—Japan is consuming 2½ million tons. We assume that India, who consumes only 340,000 tons now, will consume a great deal more in the near future.

President.—In reply to question 114 (B) you say "To put the matter briefly, the country produces to-day about 230,000 tons of cement. There is a reasonable certainty that the production in India will increase with great rapidity with protection and that without protection the production will not increase at all to any appreciable extent for years." I confess I don't follow the argument. What seems to me is that you don't think that you will be able to overcome the prejudice in favour of the imported cement. If you can overcome that prejudice without protection, then you will command all the markets except Karachi, Madras and Rangoon.

Mr. Captain.—If we cannot overcome it in time some of the companies will come to grief. I was going to say paradoxical as it may appear, without protection price may go up. And it is probably felt by some of the older companies that it would be better if two or three of the new companies were to stop production and go into liquidation, then they would be able to command a much higher price for their product than they do now.

President.—Quite possible.

Mr. Captain.—If there is no protection and if three or four companies stop working, the price of cement will go up.

President.—What seems to me quite probable is that it will be exactly the same with protection.

Mr. Captain.—Then, I think, there is this thing. Looking at the great inducement that there will be to the cement companies, they might do a lot of propaganda work if there is protection.

President.—Unless you get a higher price for your cement, it seems to me impossible.

Mr. Captain.—Our costs will go down with a larger production.

President.—You have given us some information, but it does not amount to very much. Your cost of coal per ton won't go down and your cost of packing won't go down. Between the two, it comes to 40 per cent. of your total cost. So your total reduction won't be more than three or four rupees a ton.

Mr. Captain.—Not more than that at the very outside. But three or four rupees is a considerable reduction.

President.—You remember that you have got to take three or four rupees for the current repairs of the machinery. As far as I can judge from the figures given by other companies, it is something like two or three rupees, so that you have got something to set off against your total savings.

Mr. Captain.—Still, I think that cost would be less. If we can work our factory to its full capacity, we will make great efforts to do propaganda work.

Mr. Ginwala.—It is very difficult to follow this answer that you have given. On the one hand you think that, unless protection is given, this industry may not exist at all. On the other hand you say that if protection is given, prices won't go up.

Mr. Captain.—Prices will not go up immediately, but we do expect that prices will go up in about two years' time, when the demand catches up the supply.

Mr. Ginwala.—The critical stage is the interval, and if during that interval prices do not go up, I fail to see how you would benefit by protection.

Mr. Captain.—Our costs would go down.

President.—They would get a slightly increased market.

Mr. Ginwala.—We will put it this way. Without getting any increase in your price, but only by getting more extensive market, will the industry live?

Mr. Captain.—It seems to me that it will.

President.—What would be your view if it turned out that the expansion in consumption only ran to 5 or 10 per cent. a year?

Mr. Captain.—If the expansion was only 5 per cent. a year, then the demand would take a long time to catch up the supply. Of course, as you said, the price would not go up unless the cement companies combined and sold it at a reasonable profit. They may not profiteer, but they may combine to get a reasonable level of price. The present rates are unreasonably low.

President.—There is always a difference of opinion as to what is a reasonable price and what is not a reasonable price.

Mr. Captain.—The Tariff Board will decide it.

Mr. Ginwala.—What you really want is to capture the remaining market; or do you want to get a higher price?

Mr. Captain.—At present we want to capture the remaining market.

Mr. Ginwala.—Without getting a higher price?

Mr. Captain.—We would like to get a higher price. Even without it we would like to capture the market.

Mr. Ginwala.—Do you think that that would help the industry?

Mr. Captain.—It would. In our own case it would help us a lot if we could sell our output. Our difficulty is in selling our output. Even with our factory working at half its capacity, we cannot sell our output. So, it would be a great help if we are able to sell our output.

Evidence continued on Saturday, June 28th.

Mr. Captain.—Before you proceed with the formal evidence to-day, may I say a word in explanation of what I said yesterday? As regards the cost sheet given in answer to question No. 95, I think that you drew my attention to the fact that Rs. 50,000 for factory labour and Rs. 70,000 for General services, supervision and local office charges amounted to about Rs. 5 per ton of cement. Well, I agreed with you then, but I have been thinking about it. Now what I remember is this. Take 'power and fuel.' That includes a certain amount of labour. The system that we have got at our factory is that, instead of employing labour direct to do something, we employ labour contractors. When wagons of coal and gypsum arrive, we give the unloading work to a contractor. That is one instance. Then, take the question of packing cement. We pack cement in bags and they have got to be tied up with wire. Instead of employing coolies ourselves, we give the work to a contractor. We pay him so much per hundred bags. That item is included in the cost of packing.

President.—If you could give us a note shewing various instances of that kind, we would be able to see what it comes to.

Mr. Captain.—I wish to draw your attention to the answer we have given in reply to question 37.

President.—I remember that you referred to the fact that you employed contract labour for certain purposes.

Mr. Captain.—We say there "A considerable amount of work at the factory is done through labour contractors such as quarrying limestone, transporting clay, loading and unloading wagons of coal, gypsum and cement, packing cement, etc." In the case of quarrying limestone, lots of coolies are employed to do this work. We employ contractors and pay them. The cost of these coolies is shown in the cost of raw materials.

President.—Perfectly, that was quite clear all along.

Mr. Captain.—As regards loading and unloading, etc., all that work is given to contractors. We have shown how much we paid to contractors during the last eight months down here.

President.—You have given the total.

Mr. Captain.—I would not like to say that the whole of this Rs. 80,000 did not go towards the making of 23,000 tons of cement. We have always a stock of limestone. All the lime that has been quarried has not been used.

President.—I don't mind so much about what I may call 'quarry labour.' That is a separate matter. If you could give us a note of the amount paid for packing, that is, to the labour contractors on account of packing, that will be useful.

Mr. Captain.—Yes, * also the amount spent on loading and unloading, coal and gypsum, loading cement, etc.

President.—Is that included in packing?

Mr. Captain.—Yes. There is one item of cost which is not included because that was not in the form, *i.e.*, Selling Agents' Commission.

President.—Why not lump it all under "miscellaneous"?

Mr. Captain.—I won't say that it has not been so included. I had better make certain of it.

President.—You would be able to give us the actual figures later on. What is the rate of the commission?

Mr. Captain.—5 per cent. on the f.o.r. works price.

President.—Take a case like the sale of 5,000 tons of cement to the Port Commissioners of Calcutta. In such a case, who would get the commission?

Mr. Captain.—Our agents at Calcutta—Messrs. Burn & Co., Ltd. They are our sole agents for Calcutta, and for any sale we effect in their province, they get the commission.

President.—A big contract like that might have been handled by the Head Office.

Mr. Captain.—But then, they would naturally protest against it.

President.—If you are bound by the contract, it is obvious that you should pay it. I was rather criticising the system under which contracts of that kind are made.

Mr. Captain.—Quite.

President.—After all, this system of Managing Agents which is commonly in vogue in India is an expensive system.

Mr. Captain.—It is.

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* *See* Statement II-5.

President.—Especially if you have got selling agents as well even for big contracts. If you are selling in small quantities to retail people up and down the country, you cannot handle there rates conveniently from one centre. But when a single sale is about 5 per cent. of your maximum output for the year, it does make a difference.

Mr. Captain.—After all, it is not that they do nothing. In the case of the sale to the Port Commissioners of Calcutta, they take instructions from them. We are in Bombay and the Calcutta Port Commissioners are in Calcutta. Supposing they want so many wagons of cement at a certain time, instead of communicating with us in Bombay, they give instructions to Messrs. Burn & Co., who in turn communicate with the works.

President.—Would not your people at the works be able to handle this?

Mr. Captain.—A certain amount of time would be lost.

President.—I don't see why time should be lost. Instead of writing to Messrs. Burn & Co., the Port Commissioners will write a letter to your works. Are Burn & Co. better able to secure wagons? Is that the reason for employing them?

Mr. Captain.—They do a certain amount of work.

President.—What you describe is quite common in the commercial world of India to-day. But it is always a question, when any question of protection arises, how far it is a fair charge to make.

Mr. Captain.—When you are selling cement all over India, it becomes necessary to have selling agents all over India, but as you say, in the case of big contracts, it might be possible to wipe out the commission. These people who do a great deal of work in pushing the sale of our cement would not earn anything substantial if we cut out all Government orders. Government and semi-Government bodies are the principal consumers.

President.—If the Managing Agents are not to undertake any of the selling work, it seems that again raises the question that their rate of commission is too high. However, I do not wish to discuss that further, because it is a general question not affecting one industry or one firm.

In reply to question 114 (C), you say "Even now, as far as prices and quality are concerned, it is able to face foreign competition in most places in India, though not in all." Surely that is over-stating the case. If that is the case, you would not require protection.

Mr. Captain.—We mean there are the markets of the interior, excluding ports and places near the ports.

President.—You told us that the markets in the interior were comparatively unimportant.

Mr. Captain.—Yes.

President.—What it comes to is this: that you can at present-day prices command the market but the prices are unremunerative.

Mr. Captain.—What I mean is, if we are to get the same price for our cement as the English manufacturer gets for his (which we cannot hope to get), it would be great improvement on our present position.

President.—But the point is this. What you say here is "Even now as far as prices and quality are concerned, etc." That ought to mean that you can sell at as low a price as the foreign manufacturer and make the same profit. Obviously, you don't mean that.

Mr. Captain.—We don't mean that.

President.—I quite admit that, prices being as they are, you can command these markets. The prices are unremunerative.

Mr. Captain.—Quite.

President.—Then you say "The cost will also further go down in a few years when the labour becomes more efficient." There again it is the same point which I brought out yesterday. After all, the labour costs, even with the corrections that you have made to-day, do not amount to a very large percentage of the total cost. The total saving you can effect in that way is not very considerable.

Mr. Captain.—The explanation we have given below makes a slight difference. It is not merely a question of the saving of wages, but also a question of increase in production. If your production increases, it would bring down the cost. With the same amount of coal it might be possible to produce 120 tons where to-day we produce 100 tons. A really good burner would do that. That would bring the cost down.

President.—Would you save coal?

Mr. Captain.—Yes.

President.—That is another matter. If it would bring your coal bill down, that is a big thing.

Mr. Captain.—Yes, it would. Then, there is another thing. A rotary kiln is all lined with bricks. It is a pretty expensive item.

President.—Are these ordinary bricks or what?

Mr. Captain.—Very special fire bricks. They contain a very high percentage of alumina.

President.—Where do you get them from?

Mr. Captain.—From England and Norway and Sweden. We have recently been trying the bricks made by Messrs. Burn & Co. at Jubbulpore. They do not contain a high percentage of alumina, but they contain a high percentage of silica. We are making experiments with them.

What happens is this. If you have a burner who is not competent, he burns out the whole lining. You may have a new lining; still, in a week's time, he will burn it out. That means stopping work and having a new lining for your kiln. The efficiency of a burner is very important. He can save us costs in all sorts of ways. That is why we are so anxious to get a burner out from England.

President.—I understand. It is not merely that you are going to get a better outturn but you are going to use fewer materials. That will bring down your cost as regards bricks and coal.

Mr. Captain.—Yes.

President.—In reply to Question 115, you say "As explained by the Fiscal Commission in their report, the burden on the consumer which is the chief objection to protection is practically nil in such a case." That is subject to this qualification, is it not, that eventually you hope that the price will rise? You told us that yesterday.

Mr. Captain.—Quite, but as I explained, the price we are getting in Bombay and Calcutta is about Rs. 15 less than the price of the imported cement. According to my view a rise in our price of Rs. 15 a ton would be a very big increase but still it would not be a burden.

President.—I am afraid it is.

Mr. Captain.—It is a burden on the consumer as regards that portion of his cement which was Indian cement, but it would not be any burden on the consumer who was using imported cement.

President.—I quite agree.

Mr. Captain.—That is what I was thinking. It would be a burden no doubt, but the consumer is rather having an unfair advantage now.

President.—If there is any unfairness it is inflicted on the consumer by the manufacturers who after all are willing to sell their cement to him.

Mr. Captain.—It is not the fault of the consumer that he is getting his cement at such a low price, I quite agree, but he is getting it at a price which is unreasonably low.

President.—There again as I pointed out yesterday, I think that the manufacturers will have to take this into account that, if they want the consumption of India to go up to a high figure, prices will have to stay down.

Mr. Captain.—That is my opinion too.

President.—That is the real dilemma in which I think the manufacturers are placed.

Mr. Captain.—I would like to be allowed to point out this. Supposing to-day cement is selling in Bombay at Rs. 45 a ton, if the consumer gets it at Rs. 55 a ton, still he will be getting it really cheap, considering the fact that 2 years ago he was paying Rs. 100 and more for a ton of cement.

President.—The freight from England is about Rs. 11 a ton.

Mr. Captain.—It is Rs. 12.

President.—The consumer in England is getting his cement at Rs. 45 a ton.

Mr. Captain.—Yes, at £3 a ton.

President.—If the consumer in India has to pay Rs. 55 a ton, I don't think that he is getting it cheap as compared with consumers in other countries.

Mr. Captain.—The consumer all over India will not get it cheap, but in some parts of India he will get it cheaper than the consumer in England.

President.—Rs. 55 a ton is not a low price as compared with the prices in other countries. It may be comparable with the price in the United States where the scale of living of the people is very high.

Mr. Captain.—But I think the consumer of cement of last year would have thought Rs. 55 a very low price.

President.—Last year?

Mr. Captain.—Even in 1923. About the beginning of 1923 the price of cement in Bombay was Rs. 55 or 56 a ton at the works. It has dropped of course. A lot of new cement works began working in the middle of 1923 and the price has dropped tremendously. There is another thing I would like to say with regard to the other markets. Of course we do not sell such cement in the United Provinces because we are a new concern, but others do a lot of business there in the U. P.

President.—That is quite clear. It is your experience there. Of course we shall ask the other companies and our final opinion will depend on the combined effect of all the evidence. At page 52, you say "To protect the Indian cement industry adequately, it is necessary that an import duty of at least Rs. 25 per ton should be levied on all cement imported into India." Why do you recommend this particular rate of Rs. 25 a ton. Is it based on the circumstances of your factory, or is it the general claim of the industry after discussion?

Mr. Captain.—It is the general claim after some discussion.

President.—Are you in a position to tell us why this particular figure was suggested?

Mr. Captain.—I think we suggested a sufficiently high figure which we thought would keep out the foreign stuff altogether. It may not do it in all parts of India. I think we would probably be able to sell it cheaper everywhere with this duty, but not much cheaper in Madras and Rangoon. As far as I remember there was not really much discussion about this. It was pretty arbitrarily fixed. It was thought that there was no reason why any imported cement should come into the country at all, considering that we make as good a cement and we are prepared to sell it as cheap. We thought that there should be a sufficiently high duty which will discourage people from paying a higher price for the imported cement in the market.

President.—For the greater part of the country the proposed duty would practically be prohibitive and in the outlying markets it would at any rate give you a chance?

Mr. Captain.—That is so.

President.—If Rs. 60 a ton is the present price of imported cement in the ports, with an increase of Rs. 16 a ton the price would go up to Rs. 76 a ton. Let us assume that Rs. 5 is the difference at which most of the consumers will take the Indian cement.

Mr. Captain.—I do not think so. There would require to be a greater difference.

President.—If your cement is as good as theirs, and if consumers find that it is so after trial, I do not believe that people will be prepared to pay Rs. 5 extra for the pleasure or privilege of buying imported cement.

Mr. Captain.—They won't ultimately but they might do it for a year or two.

President.—It seems to me that, if imported cement is selling at Rs. 76 a ton, Rs. 5 a ton ought to amply cover the difference on sentimental grounds.

Mr. Captain.—Otherwise I cannot explain why when there is a difference of Rs. 10 or Rs. 15 a ton between the Indian and the English cement, some people are buying imported stuff.

President.—That difference was only last year and probably not during the whole of last year.

Mr. Captain.—Of course you would have to bear this in mind. Although the British price was Rs. 60 it was not Rs. 60 the whole of last year either.

President.—At any rate one does notice that, both in Calcutta and in Bombay, the imports have gone down considerably.

Mr. Captain.—Gradually people will realise that it is to their advantage to use Indian cement: but they have been paying very much more for more than six months any way.

President.—Take it on this basis, that, if imported cement is coming into Madras or Karachi at Rs. 75 a ton, Rs. 70 is what you expect to get at these places for your cement. That means that you have to sell at the works for Madras at not more than Rs. 40.

Mr. Captain.—It would mean something less than Rs. 40.

President.—I am taking it on the figures you have supplied—something like Rs. 42 for Karachi and Rs. 45 for Rangoon. Some of the cement factories, at any rate the Sone Valley Cement Co., are better off as regards going to Rangoon, and worse off as regards Karachi, but taking all these three places you are as favourably situated as any other firm.

Mr. Captain.—There is one in course of construction at Shahabad by Tatas. When that factory is completed, I think that will be quite close to Madras.

President.—Where is Shahabad?

Mr. Captain.—This place is in the Hyderabad State and the factory would be closer to Madras.

President.—That brings me to a point I was getting at. It seems to me that it is very doubtful whether even a duty of Rs. 25 a ton would enable factories in the Central Provinces and Northern India to command the Madras market, but on the other hand, if materials exist in Southern India, the natural thing is that the requirements of Southern India should be supplied by factories there. It is not the natural heritage of the Northern India manufacturer to supply the Southern India markets.

Mr. Captain.—Even if we do not make a profit, it is a great thing to sell our cement. Even at Rs. 65 we would like to sell at Madras.

President.—That still does not in any way meet my point. It is not a market you can retain permanently if the materials exist there in reasonable quantities and there is coal near at hand. If the question is to come up at what rate protection is necessary to enable Indian manufacturers to hold the Madras market, then it must be manufactured nearer Madras than you are.

Mr. Captain.—I do not know about the quality of the raw material down there. You are going to hear Mr. Billimoria who will be able to tell you about it. I have heard that there are some difficulties about it.*

President.—That may be so. If it is not possible to make cement cheaply in Southern India that is another point, but we cannot assume it.

**See* oral evidence of the Indian Cement Company, Limited.

Mr. Captain.—Another point is that they will have to get their kiln coal from Bengal—from such a distance.

President.—Even so it seems possible that they may be able to sell their cement cheaper in Madras than you.

Mr. Captain.—There is the Dwarka Cement Company situated on the coast which is quite close to Bombay. They bring their coal by water and yet we undersell them quite easily. Their cost is higher and we have got no difficulty in competing with them in Bombay. I do not know their other difficulties but we compete with them in Bombay quite well.

President.—I would like to put you another point. Assuming that cement cannot be made in Burma, how far do you think it is reasonable that the fiscal system should be adjusted so as to secure to the manufacturer in Northern India the command of the whole of the Burma and Southern India markets. I might point out that the duties which have been imposed by the Legislature on steel were not conceived on that basis. I quite admit that it was not necessary to consider that to the full extent in the case of steel, because the total production was only a fraction of the total consumption, whereas in the case of cement the total production is in excess of the consumption. But still the point has got to be considered.

Mr. Captain.—After all would not you take into consideration what would be the amount of burden on the consumer in Burma and Madras? If the price is going to be high, you will say that you would not fix a heavy burden on the consumer but, according to what appears to me at present, the burden on the consumer would not be high. At the most it will be Rs. 10 a ton and on the total quantity it comes to Rs. 5 lakhs.

President.—Is it not pretty close to what I suggest. At present they are getting cement at Rs. 60. Your suggestion is that they will be getting it at Rs. 70.

Mr. Captain.—When you consider the whole extent of the burden it does not amount to much, and I think Burma and Madras may well be called upon to make this little sacrifice.

President.—The peculiar result will be in this case that the whole of the burden will fall upon the only areas of the country which do not materially benefit because no manufacturers there will get any benefit from the protection. The benefit will go entirely to people in Northern India and the burden will be borne by people in the Southern parts.

Mr. Captain.—If India grows more prosperous it will react on Burma and Madras somehow or other.

President.—It is a broader question, because the Board cannot adopt one principle in dealing with one industry and a different principle in dealing with another industry. The question is how far is it reasonable or fair in a country like India to impose protective duties to preserve the whole of the Indian markets for producers in India, when, owing to the location of the natural resources, the economic area which they can normally command is very much smaller than the whole of India.

Mr. Captain.—I would answer it this way. It would be reasonable if the burden on the consumer is going to be comparatively small: it would not be reasonable if the burden is heavy. It will all depend on the extent of the burden. That is the way I look at it.

President.—If there were no duty at all, Burma people would get their cement at Rs. 51 a ton. You are proposing 40 per cent. duty.

Mr. Captain.—It is Rs. 60 a ton.

President.—You must not start on the basis of Rs. 60 which includes Rs. 9 duty already.

Mr. Captain.—Surely, Sir, the present Rs. 9 duty is for purposes of revenue.

President.—Undoubtedly, but that makes no difference as to the burden on the consumer. He has to bear the burden whatever object the Government has in view.

Mr. Captain.—I submit to you this. You are contemplating a change from the present system. How much are you going to increase the burden by? The burden will be there anyhow.

President.—It amounts to 40 or 50 per cent.

Mr. Captain.—The price is going to rise for them from Rs. 50 to Rs. 60 which works out to about 15 per cent.

President.—That may be so, but the total burden is 40 per cent. It is no use saying that it is a light burden. It is not negligible by any means.

Mr. Captain.—But that is not the amount of the increased burden.

President.—Also I may point out to you that under the present system, the duties are on a tariff valuation of Rs. 60 a ton, and when the valuation comes down, the present duty of Rs. 9 will be lower.

Mr. Captain.—It might go down by a couple of rupees, at the most.

President.—Quite so, but that will make an extra burden.

Mr. Captain.—I have taken the figures on the safe side when I put them at Rs. 5 lakhs for both Burma and Madras.

President.—I heard it said by the Burma representative in the Legislature "All these things impede our development and we are the most backward Province in India."

Mr. Captain.—I do remember that being said, but I also remember something contrary being said by some other people. They said they would not mind this little sacrifice if India is going to be prosperous, and that they will also share it ultimately.

President.—I quite admit that; but still what I am putting to you is—I am only putting the case against you as an advocate—that these are the difficulties you have got to meet.

Mr. Captain.—After all I would again repeat that the increased burden we are asking to be put on the people of Madras is negligible.

President.—These are hard times and Rs. 10 is not a sum to be neglected.

Mr. Captain.—When compared to the revenue that is collected from Burma and Madras together?

President.—What it comes to is this: When you cannot sell cement to the places in question without sending it over 1,000 miles of land transit, can it be said that you have a natural advantage in that market. Is it possible that you could ever from the Central Provinces hold your own in the Madras and Burma markets without protection?

Mr. Captain.—We might in this way. Just as the manufacturer in Great Britain sells a certain amount of his surplus below cost, all manufacturers have got to do the same. You cannot be selling at the same price in all markets: you sell at cost price in some places and you may not be able to make any profit. It will still be a help to us even if we got rid of our cement at cost price.

President.—Eventually you will have to be able to produce cement cheaper by Rs. 10 a ton than the British cost, because their freight rates are only half of yours, and they will be selling in these markets under precisely the same conditions as you.

Mr. Captain.—But they have got other markets on which to sell. If you look at the different places to which manufacturers in England export, you will see that out of a total export of 500,000 tons in the year only 113,000 tons come to India. They send out cement to a great many other places.

President.—It is quite certain that, if you are content to sell your cement in outlying markets at a price which just pays you and no more, so will the British manufacturer, who has been for years and years an expert in that way.

Mr. Captain.—If he is compelled to do it, he will do it. Take the market of East Africa. He is probably better situated as regards this market than we are, and he may sell it there. It is a question of geographical position.

President.—You are a sanguine person if you think that competition is going to become less keen in the next ten years.

Mr. Captain.—I mean there are other markets for the British manufacturer.

President.—I can assure you that the British manufacturer's apetite for markets is insatiable.

Mr. Captain.—I also do know this, but I would not sell at loss if I am not compelled to do it, and he will not do it either.

President.—These outlying markets are going to be the battle ground between the English manufacturer and the Indian manufacturer. If you are both selling at the same price and their freight rates are half of yours, then your costs have got to be lower than their costs by just half that freight. You are at a permanent disadvantage in these markets if there is no protection, and that is the trouble. The Fiscal Commission have laid down as one of the conditions that eventually the industry ought to be able to hold its own without protection. You may do that in a great part of India and in places comparatively near your works, but it seems to me very doubtful about these more distant places.

Mr. Captain.—I may read the following passage from the Fiscal Commission's report—paragraph 105.

> "Difficulties may arise, however, not from any mistakes in location, but simply in consequence of the great distances in India. An industry may be located in a most suitable position. It may, however, be at such a distance from certain parts of the country adjoining the seaboard that it is unable to compete in those parts with goods imported by sea. Cases of this nature will no doubt be taken into consideration by the Tariff Board, but it would not in our opinion be right to endeavour to secure for an industry such protection as will enable it to compete in every possible market in India, if this involves giving protection appreciably higher than is required for the success of the industry in the greater part of the country."

President.—I had this distinctly in my mind and therefore you see that is a point which the Board will have to consider very carefully. Can we recommend that the rate of duty should be calculated on such a basis as will give you a chance in Burma and Madras?

Mr. Captain.—I would not say this, but I would look at it from another point of view. The cement industry is in an exceptional position because the home production is greater than the total demand. Considering the case of protection in the abstract, where prices are governed by the prices of imported articles, protection, as a rule, does increase the price as in the case of steel, but that is not necessarily a vital objection that it means a burden on the consumer. You cannot have protection at all without it, but after all is said and done what will happen is that in the case of protection for cement, prices will go up only in two provinces of India and then only by a small amount. It is a small burden on the consumer when compared with any other industry.

President.—That is only as regards the immediate effect. On your own hopes and expectations in the course of three or four years, when the cement production has increased and has overtaken the consumption, then you hope to have higher prices.

Mr. Captain.—Perhaps after three or four years we may be able to do without the Madras and Burma markets. But still I would suggest this. We would always have a certain amount of surplus production. There would be a certain amount we will always be glad to get rid of at cost price or below cost price. It is reasonable and there is nothing extraordinary about it.

President.—Even supposing that the rate of duty you recommend is imposed, you would always sell at lower prices in Burma and Madras. That seems to me the ordinary principle, but nevertheless I am bound to put to you the points I have been putting.

Mr. Ginwala.—I want to go into the selling price that you ought to get. Have you considered whether, if you get an import duty of Rs. 25 a ton, you would really be able to compete against the imported cement?

Mr. Captain.—Yes.

Mr. Ginwala.—First of all I want to know what your position is in managing the company. If the company is purely managed in the interests of the debenture-holder, then you can afford to sell at much lower prices than any of your competitors, because you need not write down the full amount for depreciation, and you need not pay any dividends to the shareholders. You would be satisfied so long as you get interest on the debentures.

Mr. Captain.—Quite so, but we cannot look at it from that point of view alone.

Mr. Ginwala.—I am looking at from the point of view of the ideal debenture-holder who looks after his own interest.

Mr. Captain.—I am afraid the court will ask us to do as well as possible for the company also.

Mr. Ginwala.—You are entitled to look after your own interest and then anybody else's. Is it not obvious that you can undersell anybody as you are situated at present?

Mr. Captain.—Yes.

Mr. Ginwala.—In your case, therefore, there are three prices at which you can sell, first of all looking after your own interest as debenture-holders, secondly the prices that you ought to get on your present output, which is half your full capacity and thirdly, the price which you ought to get on your full output. Let us determine these three prices and let us see how you will stand if the duty is raised to Rs. 25 a ton. You have taken Rs. 29 as your works cost.

Mr. Captain.—Yes.

Mr. Ginwala.—That does not include any item for general repairs and you cannot go on like that.

Mr. Captain.—No.

Mr. Ginwala.—Will Rs. 4 be enough as an allowance?

Mr. Captain.—More than enough. We will put it at Rs. 2 to Rs. 3.

Mr. Ginwala.—That will make it Rs. 32 per ton?

Mr. Captain.—Yes.

Mr. Ginwala.—You think you have got to add other charges?

Mr. Captain.—Yes.

Mr. Ginwala.—As a pure and simple debenture-holder bent on getting his return, you would be entitled to Rs. 11 a ton on the present output?

Mr. Captain.—Yes.

Mr. Ginwala.—And, say, one rupee for working capital on Rs. 8 lakhs?

Mr. Captain.—It would be slightly more than that—Rs. 1-7-0.

Mr. Ginwala.—That is Rs. 12-7-0?

Mr. Captain.—Yes.

Mr. Ginwala.—That gives you a total of Rs. 44-7-0. Now let us take the other—your present output. Working as a shareholder you take Rs. 32 on the present output?

Mr. Captain.—Yes.

Mr. Ginwala.—Then, you take Rs. 11 for debentures, Rs. 12 for ordinary shares, Rs. 1-7-0 on the working capital, and for depreciation you take on the replacement value.

Mr. Captain.—It will come to about Rs. 12-7-0.

Mr. Ginwala.—And one rupee a ton for Agents' commission. That gives you Rs. 38 *plus* works cost Rs. 32, that is Rs. 70 f.o.r. works. Therefore, in Bombay it would be Rs. 85, in Calcutta Rs. 81, in Madras Rs. 100, Karachi Rs. 98 and Rangoon Rs. 95. Elsewhere we have taken the c.i.f. price of imported cement as Rs. 49, not counting the duty.

Mr. Captain.—Yes.

Mr. Ginwala.—If you add Rs. 25 to that it comes to Rs. 74. If you have got to sell it at Rs. 10 less, it comes to Rs. 64. So that if you want to have a fair manufacturer's profit you cannot compete with anyone.

Now let us take your full production. Let us take the works cost at Rs. 30. We will take the incidence of the other charges at half. That would be Rs. 19?

Mr. Captain.—Yes.

Mr. Ginwala.—That comes to Rs. 49 f.o.r. works with freight, etc., in Bombay.

	Rs.
Bombay it will come to	66
Calcutta	62
Madras	81
Karachi	79
Rangoon	76

Getting Rs. 64 per ton, you cannot compete at all in these last three markets except at a lonss, even with your full output.

Mr. Captain.—I would not be making a fair manufacturer's profit, I would not quite be working at a loss.

Mr. Ginwala.—In Bombay and Calcutta you may just get it, but in other places you would not get it, you will lose. If you get Rs. 64 on these figures then in Bombay you lose Rs. 2, in Madras Rs. 17, in Karachi Rs. 15 and in Rangoon, Rs. 12. Is that worth while? Your point is that you must capture these three markets. I have given you the full benefit of the 25 rupees and I have given you the full benefit of your full production. Is it possible under these conditions to capture the market?

Mr. Captain.—It is certainly not possible to make the fair manufacturer's profit.

Mr. Ginwala.—Is it any good either to you or to the country?

Mr. Captain.—With great respect I submit that it is.

Mr. Ginwala.—You say Madras, Karachi and Rangoon should pay Rs. 25 a ton roughly. But you do not benefit by it, nobody benefits by it on these figures?

Mr. Captain.—I would submit that it would greatly benefit our present position. After all is said and done, the capital might be reduced, we might reduce the working capital, the profits might be reduced and the rate of depreciation might be reduced a bit; then the duty of Rs. 25 would do on the whole.

Mr. Ginwala.—If you want these people to pay Rs. 25 a ton there must be a proportionate gain to the country and to the manufacturers?

Mr. Captain.—I have worked that out myself. I quite agree that we won't make what may be called a reasonable profit in the case of manufacturers, but it pays us to be able to sell in our present position.

Mr. Ginwala.—I am taking your full production.

Mr. Captain.—We do hope that with protection we will be able to keep somewhere near the full production.

Mr. Ginwala.—If you get it what will be your position?

Mr. Captain.—If we are able to sell at cost with full production, it will be of very great advantage to the industry.

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Mr. Ginwala.—The question is, will that keep the industry alive? The idea is not merely that your firm should be kept alive: will the industry be kept alive, that is the point? You have got to explain as a claimant for protection what the position is going to be. On the assumption that you get the protection you are asking for, I am putting the case as it appears to me.

Mr. Captain.—After all, that would be as regards two of the three markets. As regards Karachi, of course there is no reason why a Cement Company in the Central Provinces should go all the way and sell there. What is probably going to happen is that, if protection is given, the Dwarka Cement Company will sell at Karachi.

Mr. Ginwala.—We will take each company as it comes to us. Suppose you were the only company at present? Do not let us mix up issues.

President.—Your point rather is that as regards one of the three outlying markets there are other firms better situated to be able to supply?

Mr. Captain.—Yes.

President.—But still Mr. Ginwala's point remains as regards the other two markets.

Mr. Captain.—After all is said and done, the total for Madras and Rangoon comes to 42,000 tons a year, and it would be of advantage to us even if we sold there at cost price. Of course in cost we have taken the full amount of depreciation. Even if we get something over the works cost it is to our advantage.

Mr. Ginwala.—You are losing sight of one fact that, if you run up to your full output, even so far as Calcutta and Bombay are concerned, you have not got a market.

Mr. Captain.—No, we haven't.

Mr. Ginwala.—Therefore, when you ask us to calculate your cost and selling price on your full output, you are asking us to do something which can never be to your advantage.

Mr. Captain.—I would in reply put it this way: that even at the present rate of duty that we have asked for we will not be well off, but we did not want to ask for anything that would be too high.

Mr. Ginwala.—Well, so far as this Board is concerned, it is not limited by what you ask. If in the opinion of this Board it is advantageous to the country that an industry ought to be protected, well then, having regard to all the general conditions, the Board is bound to make a recommendation. Now the question is, by giving you this protection, or any other protection, will the industry live? That is the point you have got to satisfy us on before we can proceed further.

Mr. Captain.—I would answer this question in this way. I mean this that more will live with protection than without protection. It may be that even with protection one company or two might come to grief, but a great many more companies would come to grief without protection, and this would produce something like a crisis.

Mr. Ginwala.—I have given you the figures of Madras, Karachi, Rangoon, etc., to point out that, as far as one can see, first of all if you had your full production you won't have the market: if you do not have your full production then you cannot even with this protection sell at a reasonable profit in any of these provinces. Now what is the Board to do?

Mr Captain.—What we would like the Board to do is to give us a higher rate of protection for three years and reduce the rate later on.

Mr. Ginwala.—But then the demand will go down and you will be no better off. You won't be able to sell your present output if the price goes up. You have yourself admitted that people have a prejudice against Indian cement, and that they do not understand the use of cement. If you put a still higher tariff the demand will still further go down?

Mr. Captain.—It is a question of choosing between the lesser of two evils. I grant that even with this production we will not make even a fair manufacturer's profit. We are selling at works cost at our Works. But if we get this protection, we will get something more than our works cost.

Mr. Ginwala.—In my view—I am not speaking for the Board—unless an industry can say that with the amount of protection it gets it is able to survive competition and do without protection, it is not worth while for the country to give protection to that industry. In your case it is not enough to say that you yourselves or some other firms are willing to sell at Madras at cost price: you cannot go on doing that for ever. Why should the country pay more for an article when in the end it is not going to benefit by paying more for it?

Mr. Captain.—What we are going to sell is 340,000 tons in this country. If you prohibit the foreign cement, for 200,000 tons we are going get, if not a fair manufacturer's profit, at least some profit.

Mr. Ginwala.—That is not your present output?

Mr. Captain. If we can produce 340,000 tons that will be something more than our present output, about 50 per cent. more.

Mr. Ginwala.—Will that enable the industry to live?

Mr. Captain.—We shall be able to keep our industry going for three years, and by that time we shall be able to work up to our full capacity. I may point out that in 1920 the consumption here was 200,000 tons and in 1923 it was 340,000 tons, an increase of 60 per cent. in three years. And cement is now going down in price, so that there is encouragement to the consumer to buy more cement. There is every likelihood that the rate of increased consumption will be maintained.

Mr. Ginwala.—That is a reasonable frame of mind for a man who is not daunted by difficulties, but as a Board we are bound to take a more cautious view of things.

Mr. Captain.—Won't you take into consideration the fact that in 1920 the consumption was 200,000 tons and in 1923 it rose to 340,000 tons?

President.—If it is a fact, that rise was accompanied by a marked fall in the price, and if in order to do you any good we have to raise the price, we should not make any allowance for an increase in consumption.

Mr. Captain.—But I would like to point out that there was a great drop in price after these figures were worked out. The big drop really took place in 1924.

Mr. Ginwala.—You must remember this, that a good deal of the increase in the use of cement may be accounted for by the fact that there were many works of public utility which were kept in abeyance during the war and a certain amount of arrears had to be made up under public works practically all over India. Take the big docks in Calcutta, for instance: take the development work in Bombay. Many things which were kept in abeyance for a long time were eventually started after the war, and therefore you cannot always expect the increase to be in the same proportion unless the people of the country take to the use of cement much more readily than they have been doing.

Mr. Captain.—Is it not reasonable to expect that they will take to the use of cement more readily than they have been doing before? The experience is that ordinary people are using more cement at present than they did before. Then again I may also mention the Sukkur Barrage Scheme. They will use a considerable quantity of cement there.

Mr. Ginwala.—But the Sukkur Barrage Scheme also must come to an end.

Mr. Captain.—It will go on for more than three years.

President.—Does it not occur to you that, supposing a heavy protective duty were put on, the immediate result would be that the Bombay Government may decide not to use any more cement in the Sukkur Barrage. Where would you be then?

Mr. Captain.—The present position is that the Bombay Government know that the productive capacity of the Indian plant is much more than the demand and there is so much internal competition that they are bound to get cement cheap.

Mr. Ginwala.—Then again my answer is what is the good of a duty then?

Mr. Captain.—With a duty we shall be in a better position than we are at present.

Mr. Ginwala.—In a big country like India, or America or Canada where the geographical distances are very long, you cannot, as the Fiscal Commission has also pointed out, have a tariff which we enable the indigenous industry to compete at all points. Take the case of the United States of America, for instance. In the Pacific coast even with a high tariff in the case of steel, for instance, a lot of steel and pig iron is imported. The same thing may be expected in India. According to you, India must follow a policy by which the whole country has got to pay a high rate of duty in order that you may capture the whole market. If we were to make recommendations which will enable you to capture the whole of the market, we shall have to take the Madras rate which is the highest—Rs. 100 a ton.

Mr. Captain.—We recognise that fact. We do not ask for Rs. 50 a ton: we ask for Rs. 25 a ton.

Mr. Ginwala.—But Rs. 25 a ton does not enable you to do it. We will have to fix a duty of 50 a ton if you are to capture the whole of the market. If we recommend that, Bombay, Calcutta and the whole of India will have to pay at that high rate of duty. As you see in the case of the steel industry in connection with the exclusion of Burma, the Government of India and the Legislature did not recognize different tariffs for different parts of the Indian Empire. Therefore that is out of the question.

Mr. Captain.—I am sorry to interrupt you but I may with great respect point out that, even if you put 50 per cent. or even 100 per cent. duty, as far as Bombay and Calcutta are concerned probably as long as the internal competition in cement is severe, prices will be governed not by the price of imported cement but by that internal competition.

Mr. Ginwala.—Leave that out for the moment. The idea is that you must get the price that the tariff is intended to enable you to get. There is no point in fixing a tariff if the industry does not get the price.

President.—Admittedly it won't over the greater part of the market for some time to come.

Mr. Ginwala.—We must discuss the thing from the general point of view. Now then, if we leave out the market that you cannot capture under the present conditions, what is your proposal?

Mr. Captain.—My answer is this. Taking the position of the manufacturer he looks upon his position as a whole. He sells at one price in one place, he sells cheaper in another place, and I do maintain that it would be an advantage to an Indian factory even if they can sell at a price little above the works cost at Madras and Rangoon, which it will be able to do with a duty of Rs. 25 per ton. Supposing cement cannot be landed in Madras at less than Rs. 75, and supposing we sell at Rs. 70 a ton, even then we get Rs. 40 a ton at the works. Our works cost even at our present rate of production is only Rs. 29-8.

Mr. Ginwala.—It may be a distinct advantage, but will that keep the industry alive, that is the point?

Mr. Captain.—He will make some profit in other places.

President.—Owing to internal competition you will only be able to cover your works cost in some of the biggest markets?

Mr. Captain.—We will be able to do better.

President.—You will be able to do no better at all as long as the internal competition exists.

Mr. Ginwala.—Is there any movement in the cement industry to raise the prices?

Mr. Captain.—There was a talk about it but it came to nothing. I would be quite frank with you. In my opinion the sensible thing for the Indian manufacturers is to come to some arrangements as regards output and price, but I am most emphatically of opinion that it would be to the advantage of the manufacturers to fix the price as low as possible in order to encourage a larger consumption of cement.

Mr. Ginwala.—You complain that you cannot import any expert labour except British labour. Is that a real hardship?

Mr. Captain.—It does happen in the case of the cement industry. We found from actual experience that it was a real hardship as far as our own company was concerned when we got our new Manager. The factory was in the course of construction, and we were really hard hit by having to wait for a considerable time for a General Manager. We gave our English Agents instruction to get a General Manager and then after waiting for a long time we had to get one from America. Then again, there is the case of the burner. We have been trying to get a burner for the last 4 or 5 months but without any success. The salary that we have offered works out to something more than twice the salary that he would get in England and we have privately informed them that we would be prepared to pay even more.

Mr. Ginwala.—I do not think any other cement works have got such difficulties.

Mr. Captain.—That is my belief too, and as far as I know, the Jubbulpore Cement Factory and ourselves are the only two. I think their lease was signed only recently and the Central Provinces Government put that clause in their lease also. There was a conference at Nagpur about it but we do not know what was the result.

Mr. Ginwala.—Don't you realise that cement is an article which is required for war purposes?

Mr. Captain.—It is so.

Mr. Ginwala.—And therefore there is some reason for this restriction.

Mr. Captain.—They don't seem to have realised the difficulty of obtaining suitable men from England. I would not have realised it myself before. Ordinarily I may tell you that it would be easy to get experts in other industries from England. Take the textile industry, for instance.

Mr. Ginwala.—The point is that cement is one of the articles which is useful for war purposes. If you don't have British subjects as Manager, Engineer, etc., supposing a war broke out, the country itself would not get the benefit of the industry.

President.—Government might have to intern your best workers.

Mr. Ginwala.—If it is a friendly power, they would be required by their own country.

Mr. Captain.—I hope that an exception might be made in the case of a friendly power like the United States.

Mr. Ginwala.—America might require these men.

Mr. Captain.—They have not got conscription as yet in America.

Mr. Ginwala.—Is the restriction necessarily a disadvantage?

Mr. Captain.—In actual practice, it is a disadvantage. After all is said and done, I don't think that any Indian manufacturer would want to bring out a man from outside England, if he could possibly get a man from England. For one thing he would have to pay much more, and for another we are much more in touch with England than any other part of the world really. But it does rather tie our hands at present. If we get a little more freedom, we will certainly be better off. At any rate, we feel this as a hardship.

Mr. Ginwala.—As regards power and fuel, in your works cost you have given us Rs. 10 a ton in round figures.

Mr. Captain.—That includes kiln coal.

Mr. Ginwala.—That is comparatively a somewhat low figure on the whole.

Mr. Captain.—Is it low?

Mr. Ginwala.—It appears to be a low figure. What is that due to?

Mr. Captain.—It may be due to the geographical position. I don't know the conditions in the other factories.

President.—So far as you are aware, you have got no advantage in respect of your process.

Mr. Captain.—Not over the newer factories. Probably we have over the older factories. But as far as the new factories are concerned, I know that they have all got up-to-date machinery.

Mr. Ginwala.—Your factory is 27 miles from Katni to the south?

Mr. Captain.—I should say it is rather north.

Mr. Ginwala.—May be. Is there another company at Katni?

Mr. Captain.—There is one at Katni. There is another at about six miles from our factory known as the Jubbulpore Portland Cement Company, Limited, in a place called Mehgaon.

Mr. Ginwala.—So far as these three companies are concerned, they should have more or less the same power and fuel cost, assuming that the equipment is about equal.

Mr. Captain.—If any of their cost is higher, I can account for it only in one way. Of course I don't know the real cause of it. But I can only speak from information.

President.—We have not yet had any figures from the other companies, so we are not referring to them.

Mr. Ginwala.—I am only asking you a hypothetical question.

Mr. Captain.—Supposing they made a contract for their coal, say, two years ago at a high figure and they are still getting the high priced coal, naturally their cost will be a bit higher.

Mr. Ginwala.—Have you entered into any long contracts?

Mr. Captain.—Our contracts will expire at the end of this year.

Mr. Ginwala.—For how many years were these contracts made?

Mr. Captain.—We made contracts for 10,000 tons of kiln coal and about 10,000 tons of boiler coal. Both the contracts will run out at the end of the year. They would have run out much earlier if we had been working our factory to its full capacity. We did not make them at the beginning of the year. We made them only in February or March.

President.—What the Board saw of long contracts in their last enquiry did not on the whole lead them to think much of such contracts.

Mr. Captain.—No.

Mr. Ginwala.—You sold to the Calcutta Port Commissioners at Rs. 32 a ton?

Mr. Captain.—Yes.

Mr. Ginwala.—And the price f.o.r. Calcutta comes to Rs. 43-12-0, including freight?

Mr. Captain.—Yes.

Mr. Ginwala.—It is a very low rate.

Mr. Captain.—It is a low rate. We have got to quote a competitive price. I may tell you that we have recently lost an order in the Stores Department. The price that got it was Rs. 27-8-0 at the works.

Mr. Ginwala.—Which company got it?

Mr. Captain.—The Jubbulpore Portland Cement Company got it. We quoted Rs. 28-12-0.

Mr. Ginwala.—It is about Rs. 15 less than the price of the imported cement.

Mr. Captain.—Yes. We are competing amongst ourselves.

Mr. Ginwala.—The tariff has nothing to do with it.

Mr. Captain.—As I pointed out yesterday, I submit that it is of great advantage to be able to sell more. The fact that we are able to sell our output would do us much good.

President.—If you go on at this rate, you will shut out the foreign cement inside a year.

Mr. Captain.—I say frankly that the sensible thing would be for the cement manufacturers to come to some understanding and not cut each other's throats.

Mr. Ginwala.—So far as you are concerned, these freight rates that you have given to Bombay and Calcutta are not unfavourable when compared to the freight that the British manufacturer has to pay?

Mr. Captain.—The freight from England to Bombay is about Rs. 12, whereas the freight from our factory to Bombay is Rs. 15-8 a ton. The difference is Rs. 3-8-0.

Mr. Ginwala.—As regards Calcutta?

Mr. Captain.—It is about a rupee less, as the freight from our factory to Calcutta is only Rs. 11.

Mr. Ginwala.—These are the principal markets, are they not?

Mr. Captain.—Yes, they are the principal markets.

Mr. Ginwala.—If you are to compete really against these people, assuming other things are equal, your cost of production must approximate to their cost. Do you think that that can be done in this country?

Mr. Captain.—We might do that, or in the alternative we must be content with a lower rate of profit.

Mr. Ginwala.—But you would not get capital, with a lower rate.

Mr. Captain.—We have already got the capital. We have got the machinery.

Mr. Ginwala.—You are always thinking of your own firm, and not of the whole industry.

Mr. Captain.—No. The industry is there, the machinery is there to-day.

President.—You think they could carry on for a long time, even though dividends reach the vanishing point?

Mr. Captain.—Quite.

Mr. Ginwala.—In your answer to Question 66, you have not given us the sort of information we wanted. What we wanted really to find out was how much you were at a disadvantage in terms of money in respect of the various items mentioned in the question?

Mr. Captain.—I am very sorry about it. Really I was hard pressed for time. I ought to have done better.

Mr. Ginwala.—I am not blaming you. Take the case of the Customs duty. You could easily tell us the Customs duty on each of the articles you use.

Mr. Captain.—The machinery has come out both during the time when Messrs. Burn & Company were Managing Agents, and during the time when Messrs. Mathradas Goculdas & Company were Managing Agents. In keeping accounts, they have not shown these items separately. I could not get it out separately. I could only get it for a portion of the time.

Mr. Ginwala.—We want to know whether it makes any substantial difference in the cost of production when compared with the cost of production in foreign countries.

President.—The kind of information we want is this: in order to produce a ton of cement, you require a capitalisation of something like £8 a ton in England and in India you require £10 or £11 or whatever it is.

Mr. Captain.—I follow.

Mr. Ginwala.—Then in England they use various materials on which they don't pay any duty. Here you use the same quantity or more and you use consumable stores on which you pay duty. Would you be able to send us these figures in your case?

Mr. Captain.—Would you like figures as regards capital cost or working capital?

Mr. Ginwala.—Both of course we want.

Mr. Captain.—I will try and send them.*

Mr. Ginwala.—You refer to some substantial concessions in freights. Do the railways give any concession?

Mr. Captain.—It is a concession rate. If you pay according to ordinary rates, the freight to Bombay would be something like Rs. 60 a ton.

Mr. Ginwala.—What is the principle of the concession? Can every one get it?

Mr. Captain.—You apply for the concession to the Traffic Department and they decide it.

President.—What Mr. Ginwala means is: have you got a special contract with the Railway, or is it one of the rates which they give to any customer when they think that circumstances justify it?

Mr. Captain.—We have no special contract with the Railway. They gave us the rates which they thought circumstances justified.

Mr. Ginwala.—Is it dependent on mileage?

Mr. Captain.—It does. I think that they have got some such system as this. If you go a certain number of miles on their line, they will give you a concession which works out at a particular figure.

Mr. Ginwala.—It is a very important factor that we have got to consider if, as you say, you have got a rate which is only one-fourth of the usual rate. It is a very big concession from the railway point of view.

Mr. Captain.—I don't know whether it is a quarter or a third. It is a fairly substantial concession. We get it over the G.I.P. line but we do not get on the E.I.R. line on which we travel 65 miles.

President.—But you do get a concession rate when you send your cement to Calcutta?

Mr. Captain.—We do.

Mr. Ginwala.—For 67 miles you pay Rs. 4-13-0 and for 616 miles you pay Rs. 10 odd?

Mr. Captain.—Yes.

Mr. Ginwala.—Is that merely due to the fact that the distance is very small?

Mr. Captain.—The distance is to small that it is not worth their while, they say, to give a concession.

Mr. Ginwala.—Supposing you go over two or three lines?

Mr. Captain.—We would have to pay more.

Mr. Ginwala.—Is not the freight calculated on the total mileage?

Mr. Captain.—No, it is not. Each company charges for the distance travelled on its line. You might be travelling 5,000 miles but they look upon their 50 miles only. We submit that this is unfair.

President.—I don't say that that is a good system, but that is the system which is followed. Your Bombay rates come to 3 pies per ton per mile. But how many maunds make one ton?

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* Statement III (II).

Mr. Captain.—27¼ maunds make one ton.

President.—It is getting down to one-eighth of a pie per maund per mile. It is difficult to see how the railways can go much lower than that.

Mr. Ginwala.—It is for the railways to determine whether they cannot make some arrangement to give a uniform rate on the total mileage. They may have some reason for not doing that.

President.—Look at the Capital Account which you have given in answer to Question 78. I would like to know how this is financed. You have only 60 lakhs of paid up capital and 60 lakhs of debentures; your block value is Rs. 135 lakhs and your working capital is Rs. 8 lakhs.

Mr. Captain.—We have not got the whole 8 lakhs yet. We have got Rs. 6,60,000. The Debenture holders have lent more money after they have entered into possession. They have got to run the factory.

Mr. Ginwala.—There is some mistake in your accounts I think.

Mr. Captain.—It is like this. I have worked it out. The Debenture loan is Rs. 60 lakhs. Then the Trustees for the Debenture holders have financed, after they have come into the possession of the factory, about Rs. 10 or 11 lakhs. Out of that Rs. 6 lakhs has gone towards the capital expenditure, and the remaining Rs. 5 lakhs has gone towards the working capital, and the balance of it is interest. If you take share capital Rs. 60 lakhs, *plus* Rs. 60 (Debenture loan) and *plus* Rs. 6 lakhs more for capital expenditure, and take the interest on the Debenture loan for two years from the 1st of January 1922, which will be about Rs. 6 or 7 lakhs, you will get the total figure.

Mr. Ginwala.—That interest has gone into the block account. Therefore you have got to earn on the block value of Rs. 135 lakhs *plus* your working capital of 5 lakhs which comes to Rs. 140 lakhs. You say that you have spent Rs. 7 lakhs more on buildings and Rs. 15 lakhs on machinery. So, there is another Rs. 22 lakhs. Thus, you have got to earn on Rs. 162 lakhs.

Mr. Captain.—It comes to very little. It is about 9 annas a ton.

Mr. Ginwala.—We have to allow for Rs. 9 lakhs more. So, it will come to about Rs. 1-8-0. We will have to add that.

Mr. Captain.—Yes. With your permission I would like to say this. After all, when the Tariff Board is considering the question of protection and manufacturers' profit, it may be that at the present capitalisation, the manufacturers may not be able to make a profit. You have got to take this into consideration. Here is the machinery. The company may be reconstructed. It may be purchased by another company at only a crore of rupees.

Mr. Ginwala.—We cannot take that.

Mr. Captain.—What I am suggesting is: take all the cement plants together. Supposing the capital cost was much less to some other company, would it pay the country then to work the machinery? Would not the Tariff Board consider this question?

President.—May I put it this way? Supposing the Tariff Board could determine with reasonable accuracy what the cost of putting up a factory of a given output would be at the present time, and supposing they were to say "it would be reasonable to allow 8 per cent. on the whole of this capital and to calculate the depreciation at an all-round rate of 6¼ per cent." Do you think that it is a reasonable way of doing it?

Mr. Captain.—Yes.

President.—I admit that it is a very difficult thing to do. But that is what is largely in your mind when you admit that the particular figures of your concern may be misleading to this extent that they come on the high side?

Mr. Captain.—Yes. I don't think that I am expressing myself very clearly. What is passing in my mind is this. Do not think of the different companies. Take the country as a whole. It has got a certain amount of cement machinery. Is it going to be profitable to the country at large to work this cement machinery?

President.—We are prepared to go further. It is worth while to go on working the machinery even at a small profit.

Mr. Captain.—Yes. In considering the amount of profit, the capital that you would take into consideration need not necessarily be the capital that has actually been spent to erect this factory.

President.—You must take into account the capital which would be necessary to replace the machinery. Unless you set aside the amount required for replacement, it is a wasting asset, and eventually you will have nothing to replace your machinery with.

Mr. Captain.—You must set aside for full depreciation on the replacement basis, but as far as the question of manufacturers' profit is concerned, I don't think, looking at it from the point of view of the interests of the country as a whole, you would necessarily take exactly the whole capital cost.

President.—Your case is different. What we had to deal with in connection with steel was 'what would attract fresh capital into the business.' But I admit that in the case of cement, that is not an urgent problem.

Mr. Captain.—No.

Mr. Ginwala.—It is difficult to find what principle to apply to your industry.

Mr. Captain.—I suggest to you to make it possible for the country to work the cement machinery which is there. It has cost the country a lot of money.

Mr. Ginwala.—It is a reasonable hypothesis.

Mr. Captain.—Even taking the capital cost at Rs. 50 lakhs, it is not possible to work the machinery profitably at present rates.

Mr. Kale.—Can you say that India has got any special advantages, intrinsic or natural, with reference to this industry when compared with other countries?

Mr. Captain.—I don't say that other countries have not got those advantages. We certainly have natural advantages. We have raw materials on the spot. We have coal at a reasonable distance. We have any amount of cheap supply of labour.

Mr. Kale.—The reason why I am asking you the question is this: generally protection is asked for on such grounds, as the industry being in a state of infancy and being suitable for the country, etc.

Mr. Captain.—I would submit that the industry is suitable. We have got ample supply of raw materials and other advantages which I have mentioned already.

Mr. Kale.—Compared with the foreign article, you already enjoy an advantage in price of about 40 per cent. You have got an advantage of Rs. 12 in the matter of freight, Rs. 9 in Customs duties and Rs. 2 in landing and other charges.

Mr. Captain.—That is Rs. 23 per ton. But we have got to pay freight ✓ from our factory to Bombay which is Rs. 15-8-0 a ton.

Mr. Kale.—So far as Bombay and Calcutta and other ports are concerned the foreign stuff is landed there at a price which, on an average, leaves you at an advantage to the extent of 40 per cent.

Mr. Captain.—I don't follow these percentages quite clearly.

Mr. Kale.—It is Rs. 23 a ton.

Mr. Captain.—But against that we have got to pay Rs. 15-8-0, as freight for a ton of cement from our factory to Bombay. So we have not got the ✓ advantage of full Rs. 23. We have got the advantage of only Rs. 23 *minus* Rs. 15-8-0, *i.e.*, Rs. 7-8-0, so far as Bombay is concerned.

Mr. Kale.—What I am putting to you is this. You are at an advantage with reference to the United Kingdom, for instance, on account of freight, duty and landing charges. How is this advantage wiped out? In answer to the President yesterday you said that you are handicapped on account of the higher prices you have got to pay for your machinery, stores and so forth, and that handicap amounted to 20 to 30 per cent. I take it that that handicap wipes out the advantage you have got here.

Mr. Captain.—With great respect I would point out that the advantage is not Rs. 23 but Rs. 7-8-0.

Mr. Kale.—In Bombay and Calcutta markets?

Mr. Captain.—The advantage is Rs. 7-8-0 in Bombay and Rs. 11 in Calcutta.

Mr. Kale.—Are we to take it that it is wiped out by the disadvantages?

Mr. Captain.—Not only because of the disadvantage but, as has been pointed out, we are an infant industry. We suffer from many disadvantages. We have pointed out one difficulty—the question of the burner. The man has got to be trained and we have not got trained labour in this country and our costs are going higher. They will come down in course of time.

Mr. Kale.—From the figures you have given it does not appear that in the course of five years you will be able to stand foreign competition. In the case of protection, you ought to be able to show that, after five years, the temporary disadvantages will disappear and you will be able to stand on your own legs.

Mr. Captain.—If our Indian burners will improve and become good in three or four years, it may make an enormous difference.

Mr. Kale.—It would not come to more than 8 as. a ton.

Mr. Captain.—It will come to more than Rs. 5 per ton. We have got kilns and we get with an Indian burner a daily production of 100 tons with 40 tons of coal. A good burner will use 40 tons of coal and will produce 120 tons. That is 600 tons more per month. By using the same quantity of coal we will get 600 tons more. There is also the lining in the kiln and that is burnt down by an incompetent burner—I have known them do it—in 15 days. If you have got a competent burner he could make it go on night and day for six months. These difficulties add to your cost.

Mr. Kale.—Do you put it down as 25 per cent. reduction in cost if all these things take place?

Mr. Captain.—It will be a big difference. The greatest thing in cement making is the burning. If we get satisfactory burning, our cost will go down a great deal.

Mr. Kale.—It appears from what you have told us that you will be able to make this industry live a little longer. It will be a prolonged agony, that is all.

Mr. Captain.—In three or four years we do expect to get our cost down.

Mr. President.—Mr. Kale's point is this. Let us take it that cement without any duty at all would come in at about Rs. 50 a ton. As far as I can see, your overhead and profit come to about Rs. 20 a ton on full production. Supposing you carry on with something less than that, say Rs. 15 a ton. In order to get to Calcutta at Rs. 50 a ton you have got to keep Rs. 10 for your freight to Calcutta. That takes you down to Rs. 40. Take Rs. 15 for your overhead and profit. Then you have only Rs. 25 for works cost. Do you think that your works cost will go down to that level?

Mr. Captain.—As a matter of fact in our private conference at the factory it has always been our ambition to bring the cost down to Rs. 25, and we believe it is a possibility without any difficulty at all.

President.—Mr. Kale's point is this: Even on your cost which as far as we have seen is certainly lower than anybody else, you have got to sqeeze a bit to get down to that, and it is not obvious how others are going to get down to it.

Mr. Ginwala.—You must really get your figures checked and must not come and say afterwards that there is a difference of Rs. 10 or something like that there.

Mr. Captain.—The cost figures are absolutely correct. After all, I have got to rely on information which we have received, but they have been checked at the Head Office.

Mr. Ginwala.—Especially your fuel cost I should like you to check again.

Mr. Captain.—We get our boiler coal on a freight of Rs. 3 a ton. Take for instance the Gwalior Cement Company. They are probably paying a freight of Rs. 10 a ton on their coal from Bengal.

Mr. Ginwala.—If you are sure, so much the better.

Mr. Kale.—Unless your cost of production goes down substantially I do not see how any measure of protection is going to help the industry.

Mr. Captain.—It is an infant industry and you cannot get over that. Labour will get more efficient. Even people in my position will learn a little more than they do at present.

Mr. Kale.—It is only a pious wish?

Mr. Captain.—Is it not reasonable to assume that?

Mr. Kale.—There is a limit beyond which your improvement cannot go.

Mr. Captain.—We have barely started on the improvement process yet and we are bound to go a great way.

Mr. Kale.—You have just told us that you are inclined to distinguish the industry from the factories which are engaged in the industry so that you would wish that somehow or other the cement machinery in this country should be worked. Does it not amount to a sort of nationalisation of the industry?

Mr. Captain.—I may explain it this way. I do not suggest that Government should take it. We have been talking about these figures at a rate of profit calculated on a capital of, say, Rs. 1,20,00,000. I submit that it is not necessary to consider that at all so far as the country is concerned. Even supposing that our factory cost only Rs. 20 lakhs, even then you cannot make it pay.

Mr. Kale.—On the present figures you say it is not possible for these factories to make any profit until reconstructed.

Mr. Captain.—It will be a great benefit to the industry and to the country that they should be reconstructed, but no amount of reconstruction or writing down is going to help them without protection.

Mr. Kale.—If we grant protection it may happen that these companies will go on, as they have been going, from hand to mouth and they will not be reconstructed. You will leave them to mutual competition? And you think that those who are the least efficient may go to the wall and those who are efficient would be kept alive?

Mr. Captain.—I would like to keep all alive. If they came to a reasonable arrangement between themselves they could all remain alive. With great respect I submit, that, if you say that even with protection those less efficient will have to go to the wall, then I say that more will go to the wall without protection than with protection.

Mr. Kale.—It is not a permanent remedy.

Mr. Captain.—I submit it is permanent if you look at it this way. For these three years what is going to happen? The industry is in its infancy: labour will be inefficient for three or four years. The demand in the country for these years will be less than the supply. After these three years the demand will be much greater and the labour will be more efficient. If we tide over this period we will be able to exist.

Mr. Kale.—You have no reliable basis to go upon.

Mr. Captain.—After all there are two assumptions that I have made, one, that labour will become more efficient. Is that after all an unreasonable assumption? Indians are ordinarily intelligent people and they are sure to improve.

Mr. Kale.—I want to reduce everything to the basis of cost of production.

Mr. Captain.—It may be as much as Rs. 5 a ton.

Mr. Kale.—You must be able to convince us on the point.

President.—You have got to reduce your present cost by Rs. 7 or 8 per ton because your present cost will increase by Rs. 2 or 3 on account of repairs to machinery, etc.

Mr. Captain.—May I explain one thing. We are supposed to get an output from the present kiln of 150 tons a day and on our two kilns we have to get 300 tons. With a good burner I think we ought to get 150 tons on the average. We have gone on for days and days and we have got only 90 to 100 tons, and I am going to send you our cost sheets* and you will see how the cost varies as production varies. We had one good burner who was trained in another factory. Unfortunately there was an accident in the factory and the man was killed. Immediately we had no competent burner and the cost went up high. Recently we had another burner trained and the cost came down. Supposing we produce 3,000 tons a month and our cost is Rs. 40, then if we produce 4,000 tons the cost will be Rs. 30. It will make a big difference, though you may use a little more coal.

Mr. Kale.—Now, the difficulty about burners: is it common or only peculiar to you?

Mr. Captain.—I understand that in the case of the factories which have been working for some time, they have got burners from England.

Mr. Kale.—As regards the other factories we may find that even in spite of efficient burners their cost is high.

Mr. Captain.—They may have other difficulties we have not got, but this is a disadvantage inherent in an infant industry in India unless you get men from abroad.

President.—But have not the older companies succeeded in overcoming the difficulties?

Mr. Captain.—I may mention one company—Bundi. I think they are getting very good production out of the kilns.

Mr. Kale.—Then their cost of production must be lower than yours?

Mr. Captain.—Should be lower on the kiln. For instance I may say that we are a new factory. We might enjoy the advantage in this that we have got the latest up-to-date machinery, Bucyrus shovels for getting our raw materials and so on.

Mr. Kale.—You have not begun to use them?

Mr. Captain.—We are using them for loading the stone. It will affect our cost considerably when we do give them full play. I may also say that the process of packing may be slightly better in our place.

Mr. Kale.—We cannot consider your factory only. We have to take the industry as a whole, take all the facts, disadvantages, etc., into consideration.

Mr. Captain.—These are not permanent disadvantages. Of course, as I say, I cannot answer for them. I do not know how they are situated, but probably their disadvantages are also temporary.

President.—You have told us that in your opinion it would be a sensible arrangement if the manufacturers were to combine, so as to secure more adequate prices. Now supposing you happen to be the factory which was most favourably situated. You might have certain advantages in having

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* Not printed.

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bought up-to-date machinery at a time when prices were lower and you might have accumulated big reserves during years of prosperity. Do you think from your point of view the combination would necessarily be a good business? It might pay you better to hang on until some of the others had been frozen out, and then your turn would come.

Mr. Captain.—We were all agreed except one company: what was present in their mind was probably something like what you have put to me. But I think they are short-sighted and I think it would be to the advantage of all. There are schemes like this worked out.

President.—But you cannot run the thing at all unless there is some degree of financial responsibility.

Mr. Captain.—It might pay the combine to make some of these companies shut down. The actual scheme that was worked out was a very good scheme. We had to cut down the output to the present demand. It has been recognised by us that, if we are going to encourage increased consumption in India, we have to keep prices low.

Mr. Ginwala.—In answer to Question 57 you have not given us all the figures wanted—prices of imported cement for 1912, 1913, 1914, etc.

Mr. Captain.—I shall give you these.*

Mr. Ginwala.—The present day c.i.f. price is about the same as the pre-war price according to the figures which other companies have given. There is hardly anything which has yet reached the pre-war level, and therefore it is possible that the foreign manufacturer may not be able for long to sell his cement at as low a price as £2-7-6 f.o.b. In that case the Indian manufacturer won't appear so unfavourably situated compared to the foreign manufacturer, supposing his price comes to £3.

Mr. Captain.—I did get some information. This is what technically comes within the definition of "dumping."

Mr. Ginwala.—My point is this. Is there any prospect of this price of £2-7-6 going up? Can the British manufacturers go on selling at £2-7-6?

Mr. Captain.—According to the report of the Associated Portland Cement Manufacturers they themselves say that they are selling for the export market at cost price. If the consumption of cement in England goes up—which is likely as they are starting development works like road-making, etc., to relieve unemployment—there would be no need to export cement.

Mr. Ginwala.—What is the normal selling price in England?

Mr. Captain.—£2-18 to £3 a ton.

Mr. Ginwala.—Is that a price which leaves a profit?

Mr. Captain.—They are making a good profit. One of the companies made a handsome profit last year, I know.

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*Statement III (III).

Witness No. 3.

THE INDIAN CEMENT CO., LTD.

(Agents.—Messrs. Tata Sons Ltd.)

A.—WRITTEN.

Statement I.—Replies dated 12th June 1924 to questionnaire (1) (a).

With reference to your letter dated the 21st ultimo, forwarding copies of the Questionnaire to be answered by the Cement Companies in connection with your Board's enquiry into the Cement Industry, we beg to forward herewith the answers to the Questionnaire on behalf of the India Cement Company, Limited. We also enclose, as desired, 5 spare copies of each set of answers and trust that these will reach you in time. We have stated our case fully in our answers but in the event of your Board requiring us to tender oral evidence, we shall be prepared to send our representatives for the purpose to Simla. We would, however, point out that as their presence is imperative at a General Meeting of one of our allied Companies at Hyderabad on the 25th instant, it will not be possible for them to go to Simla between the dates mentioned by you. In the event therefore of our oral examination being considered necessary, we would request you to fix a date after the 30th June if you can possibly do so.

With reference to the information required by the Board in connection with "Works Costs" we have given all possible information bearing on the points and issues raised in the questionnaire and we leave it to the Board to publish such portions as they may consider necessary to enable the public to properly appreciate the case of the Cement Companies, for protection.

REPLIES TO QUESTIONNAIRE.

I. INTRODUCTORY.

1. The Indian Cement Company, Limited, was registered as a public Company on 28th August 1912 in Bombay under the Indian Companies Act.

2. Eighty per cent. of the Capital invested in the Company is held by Indians. All the Superior Management at the Head Office and the Works are Indians and the only non-Indians are the Manager and the Head Chemist. All the Directors except one are Indians.

3. The Company manufactures Portland cement only at present.

4. The factory commenced manufacture in October 1914.

5. The present full capacity is 30,000 tons annually of Portland cement. If our existing old cement mill is converted to raw grinding at a cost of about Rs. 60,000 the capacity would be 40,000 tons annually.

6. The output of Cement Clinker annually has been—

	Tons.
1914	945
1915	4,912
1916	7,408
1917	14,042
1918	17,760
1919	19,457
1920	16,222
1921	25,750
1922	21,261
1923	14,814

7. In the Port of Porbandar in Porbandar State, Kathiawar, Western India; the Works being on the Dock Estate.

(*a*) Yes. The limestone and siliceous stone deposits are situated on the Porbandar State Railway ten miles from the Works, sidings connecting up same: the requisite clay or mud is obtained from the alluvial deposits adjoining the Works site.

(*b*) Coal is the only item which is not within easy reach of our Works, but as will be shown later, the cost laid down at Works was a reasonably low figure when the Works were started. In the last few years the rise in the railway freights as well as in the price of coal has very adversely affected the situation.

(*c*) The Company's factory is situated very close to the very important ports and distributing markets of Bombay and Karachi and is also most favourably situated for the Persian Gulf Trade.

(*d*) The most important factors in selecting the site for a cement factory in India are (1) an abundant supply of raw materials of the correct composition, (2) ample water supply, (3) suitable fuel supplies within reasonable distance of the Works site, (4) close proximity of the site to large Cement Consuming Centres and easy access to the railways feeding those Centres, (5) good and sufficient labour.

8. We manufacture only one kind of cement, *viz.*, Portland cement, designated by the British Standard Committee on Portland cement as "Artificial Portland Cement."

9. Yes. We manufacture to the British Standard Specification. The British Standard Specification for Portland cement requires modifications applicable to British and Indian cements and such modifications are now under consideration. For India special clauses will be necessary only in so far as they relate to the temperature of the testing room and the setting time at the higher temperature prevailing in India. These proposed changes are being now investigated by a Sub-Committee in India.

10. We claim that our cement is equal in quality and appearance to the best English cement and superior to most of the imported cements. Our cement generally commands at least as good prices in competitive markets as Belgian, German or Japanese cement, but there is still a definite bias in the minds of certain consumers in favour of English cement which enables it to command a few rupees premium; but this bias is being gradually removed as consumers get more familiar with Indian Cements.

II. RAW MATERIALS.

11. Limestone, siliceous stone and clay.

12. (*a*) 15,000 tons cement per annum, limestone 19,711 tons, siliceous stone 1,652 tons, clay 4,136 tons.

(*b*) 30,000 tons cement per annum, limestone 39,423 tons, siliceous stone 3,305, clay 8,272 tons.

13. For 1 ton of cement we require 1·3141 tons limestone, 0·1102 tons siliceous stone, 0·2757 tons clay.

(*a*) The wastage before calcining is approximately 3·5 per cent.

(*b*) During calcination about 37·68 per cent. loss occurs.

(*c*) Loss *nil*.

14. 1·7 tons of dry raw materials are required to produce one ton of cement.

15. 1 ton clinker is required to produce 1 ton of cement.

16. 83·78 per cent. of raw materials are drawn from the well-known Porbandar limestone quarries which contain virtually inexhaustible supplies of raw material. These deposits are situated 10 miles from the factory.

17. The raw material is in the form of limestone chips, being quarry waste, it is collected by petty contractors and loaded into open, high sided,

metre-gauge wagons of 272 maunds capacity and hauled by locomotive from the quarries to the factory sidings, the railway being worked by the Porbandar State for transporting Porbandar stone blocks from the quarries to various stations in Kathiawar or to the docks for shipment.

18. In lieu of all Royalties directly leviable on raw materials the Porbandar State charge a Royalty on the cement produced therefrom at the rate of annas five per ton of cement.

19. The cost of raw materials per ton delivered and stored on the factory site for the year 1923 was as follows :—

(*a*) Limestone—

	Rs.	
(1) Royalty	*Nil*	(*vide* answer No. 18).
(2) Labour	0·56	
(3) Freight by rail	0·80	
(4) Miscellaneous	...	
TOTAL	1·36	

(*b*) Siliceous Stone—

	Rs.
(1) Royalty	...
(2) Labour	0·97
(3) Freight by rail	0·80
(4) Miscellaneous	...
TOTAL	1·77

(*c*) Clay—

	Rs.
(1) Royalty	...
(2) Labour	2·033
(3) Freight	...
(4) Drying clay	1·380
TOTAL FOR DRY CLAY	3·413

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N.B.—The rates have varied very little during the past 5 years; about 1917 the railway freight rates were increased 150 per cent.

20. We have an Agreement with the Porbandar State granting us the rights to quarry raw materials for a period of 40 years from 1912. A copy of agreement herewith. We do not consider the terms unfavourable.

21. The raw materials are constant in composition and no deterioration is anticipated.

22. The raw materials are quite satisfactory.

23. We have secured 40 years' rights to obtain raw materials. The supply is practically inexhaustible.

Costs may increase as the scales of labourers' wages advance or freight rates increase.

24. No.

25. No.

26. No.

27. No. We do consider the existing freight rate of Rs. 5-0-0 per 200 maunds from the quarries to our Works (10 miles) excessive.

III. LABOUR.

A. Quarry Labour.

28. This work is done by petty contractors; numbers of people engaged not recorded by us.

29. Not so far as is known to us.

30. Indigenous.

31. No.

B. Factory Labour.

32. For a few years more, imported skilled labour is necessary.

33. At present no imported labour is engaged, but one skilled European Kiln Burner or attendant would be necessary when the factory works to full capacity.

34. The factory started with two imported experts—one as Manager, the other Chemist and Assistant Manager, but no skilled labour. These two officials trained both Engineers and Chemists besides all other skilled labour required in the process of manufacture. Indians have been trained in all Departments of Cement Manufacture and transferred to other Works in which the Company were interested or obtained positions in one of the many new works operating in India.

35. The only imported help to-day is the General Manager and the Assistant Manager and Chemist and we have to pay in their case at least 50 per cent. more than a Manager or a Chemist could get on works of the same size in Europe.

36. Total Indian labour numbers 348.

Average rate of wages:—

	Rs.	A.	P.	
Shift Engineers	4	5	4	daily.
Firemen and Greasers	1	8	0	,,
Electric machinery attendants	1	8	0	,,
Cement machinery attendants	1	6	0	,,
Greasers	1	0	0	,,
Kiln burners or attendants	4	0	0	,,
Kiln Greasers	1	0	0	,,
Semi-skilled coolie labour (male)	0	13	0	,,
General coolies	0	11	0	,,
Female coolies	0	8	0	,,
Foreman	4	0	0	to Rs. 6 daily.
Chemists	2	0	0	to Rs. 7 daily.
Fitters and Blacksmiths	2	0	0	daily.

37. See statement attached. (Appendix I.)

38. The labour force is sufficient and is drawn from the vicinity of the works except shift engineers. We have trained all our works staff and labour.

39. The Indian labour here is intelligent and improves with training, but in efficiency and stamina it stands somewhat lower than workmen in the more favourable climates of Europe or America.

40. Most of the labour being local residents of Porbandar, and the town being not a congested area like Calcutta or Bombay, no housing arrangement has been found necessary. As regards promotion of the welfare of labour in other directions, the period of the Company's prosperity has been too short to enable it to undertake any measures in this direction, and in the last two years in particular, the Company has had to pass through very difficult conditions.

IV. POWER (INCLUDING FUEL).

41. Steam power.

42. Electric power is used on certain outlying units of the plant, the alternators being rope driven. Cost per unit is not available.

43. Coal is employed as fuel for the steam power plant. Coal is obtainable in sufficient quantity at present.

44. The coal fuel required for power, calcination and all purposes amounts to 0·6 tons per ton of cement produced.

For the sake of economy we use 1st and 2nd grade coal half and half.

45. 50 per cent. of fuel comes by rail a distance of 885 miles and 50 per cent. by rail a distance of 1,442 miles. The prices f.o.r. works siding being Rs. 19-0-0 and Rs. 31-0-0 per ton respectively.

46. No.

47. We do not use wood as fuel.

V. MARKET.

48. The total Indian production of cement for each year since the factory commenced manufacture in 1914 is as follows:—

	Tons.		Tons.
1915	18,000	1920	86,320
1916	38,664	1921	128,627
1917	73,726	1922	147,615
1918	84,344	1923	235,229
1919	86,814		

49. The estimated total Indian demand for cement at present is about 3,50,000 tons.

50. As will be seen from the following remarks of Mr. Musgrave and Mr. Davies in the Indian Munitions Board Hand-Book in 1918, the Government themselves were of opinion that India would need very large quantities of cement in future years:—

> "After the war when works at present in abeyance will be continued the requirements will be greater than ever. The use of ferro-concrete comparatively new even in western world is extending very rapidly, bridges and heavy structural work of all kinds and even ships being made of it. It will in itself provide a big market for Portland cement. The opening up of Mesopotamia will also afford a large sale for Indian cement if it be available ....; The output of these factories being very much short of the present demands even, it will obviously not suffice for future requirements and there is still room for additional works in other parts of India."

The above prognostication has not been realised on account of the trade depression and more particularly on account of the severe retrenchment policy adopted by not only the Government of India but each Provincial Government and by various semi-public bodies which cannot fail to have a very adverse effect on the construction of public works and therefore on the use of cement. But there is every reason to believe that the Indian demand will substantially grow from year to year and the reasons for this belief are that when the existing financial stringency gradually disappears, more and more works of public utility as well as private building for both industrial and residential purposes will be taken up requiring the use of cement in steadily increasing quantities. The diversified uses to which Portland cement can be put particularly on account of its prevalent low prices will induce a larger demand for it in other directions and specially as a substitute in place of lime mortar. Experiments in connection with such substitution are now being carried on in the Gwalior State and by some engineers in the United Provinces with successful results so far as regards efficiency and economy. ✓

The total annual consumption of cement in this country has shown steady and at times even rapid progress as can be seen from a statement attached herewith. It will be seen that consumption increased by 25 to 35 per cent. yearly in the first 3 years. Then there was a sudden halt undoubtedly due to a large extent to the world economic prices of 1907 which upset trade and industry all over the world, but even in this period consumption was well maintained. In the next 5 years, we have again a very considerable increase, the figures for 1912-13 being as much as 60 per cent. over the highest figure of the previous quinquennium. 1913-14 shows a falling off from this as it must, because the last six months of this year were affected by the great war with its financial and economic complications, scarcity of freight and difficulty of getting supplies from Europe where cement had become a most necessary war material. Fortunately, just at this time, the three pioneer concerns --Katni, Bundi and this Company-- had come to the producing stage and consumption again started going up limited only by the available supplies and we estimate it at about 2,52,000 tons for the year 1921-22 against 1,60,000 in the highest pre-war year. By this time retrenchment became the watchword with every Government, public or semi-public body and this was coupled with the depression in trade and industry which cannot but have a very adverse effect on the consumption of cement and yet consumption was well maintained even in 1922-23 and the figure is likely to be still higher for the year just closed. With the great need for the development of irrigation, communications, etc., that undoubtedly exists in this country, there is very little doubt that consumption will once more get into its stride as soon as the necessary finance is available at reasonable rate and should in a few years be able to take care of all the cement that can be produced by the various concerns now in existence.

51. This Company's principal markets in India are Karachi, Kathiawad, Gujrat, Bombay, and Madras. Kathiawad is the province in which the factory itself is situated. Karachi, Bombay and Madras are reached by sea and their respective distances from the factory are 302, 258 and 1,908 miles.

52. The Company's own factory is situated at a port and this question therefore does not arise in the case of this Company.

53. Places like Singapore, Java, Sumatra, Seychelles, Aden, Persian Gulf, and Mesopotamia would be the most natural outlets for the output of this Company, as the distances from the port where this factory is situated to the markets named, are shorter than from other competing countries, provided reasonable freights are granted by the shipping companies. This Company is annually exporting about 1,500 tons of cement from its factory to Persian Gulf ports by country crafts. Export to other places mentioned above is not possible by country crafts but it is very probable with reasonable ocean freights, the present steamer freights being prohibitive. Japan is able to export cement to Singapore, Java and Sumatra owing to low freights given by its state-subsidized steamship companies, whilst India is unable to do so.

54. The cement manufactured by this Company has been purchased by the Local Governments, Railways as well as Public Bodies and also by the Military Department. During the war almost the whole output of the Company was commandeered by the Government at Rs. 50 per ton or thereabout when the market price was anywhere from Rs. 125 to Rs. 150 and at one time was as high as Rs. 250 per ton.

After the termination of the war, the Development Department of the Government of Bombay which naturally is a very large consumer has entered into a contract with four Companies—Katni, Bundi, Jubbulpore, and Dwarka—for the supply of all cement that they may require on the basis of cost *plus* 15 per cent. The benefit of this contract was extended to the Public Works Department and such semi-public bodies as wished to join in it with the result that our sales to such public bodies have been much smaller than they otherwise would have been in this Presidency. However, this Company has been able to secure substantial orders from both the Bombay and the Madras Corporations. We have also been supplying cement to several railways in and around Kathiawad and to the Garrison Engineer, Military Works, Bombay. We attach herewith for your information a booklet on our Ganapati cement in which we have appended a list of some of our principal customers.

(*b*)

	Quantity supplied.	Average Price per ton *ex*-works.
	Tons.	Rs.
In 1920	833	80
1921	1,525	90
1922	2,963	70
1923	562	50

VI. FOREIGN COMPETITION.

55. The foreign countries from which cement is mainly imported to India to compete with the indigenous article are Britain, Belgium, Germany, Japan and Denmark.

56. The prevalent competition is only in the case of Portland cement as India does not manufacture any other variety.

57. (*a*)

	Prices of imported cement per ton.	Prices realised by us per ton.
	Rs.	
1912	45—50	Not producing.
1913	,,	
1914	60	Began producing only in October 1914.
(*b*) 1917	Rs. 125 going up to Rs. 225	Output commandeered by Munitions Board @ Rs. 42-8 subsequently raised to Rs. 55 *ex*-works.
	Rs.	Rs.
(*c*) 1921-22	200—150	150—100
1922-23	150—75	100—70
1923-24	75—55	70—50

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We regret we have no detailed information as to the f.o.b. price and charges of imported cement.

58. The information is obtained from the local market.

59. We are unable to give any opinion on this subject.

60. We believe that the prices at which foreign producers sell for export to India must be unremunerative, although we are not in possession of figures in definite support of such belief. The following extract, however, from the Town Correspondent's letter in the *Times* Trade Supplement appearing in the issue of 3rd May 1924 of that paper is very suggestive. Professor H. E. H. Fremantle, Acting Chairman of the Board of Trade and Industries, South Africa, has especially investigated the dumping of cement in the Union and made the recommendation that a dumping duty of 2*s*. 5*d*. per cask should be imposed on English cement coming into the country at an f.o.b. price of 8s per cask in accordance with existing law :—

" In regard to English cement, Prof. Fremantle summarizes his case in the following passage :—

> " The latest figures available show that in the month of August 200,000 lbs. of cement were imported from the United Kingdom at an

> f.o.b. value of £200 and the figures for the preceding months, though much larger, are at much the same rate. The August figures work out at an export price of 7*s.* 11*d.* per cask. The home consumption value therefore was 10*s.* 4*d.* per cask and the export price was 7*s.* 11*d.* per cask. The amount of the dumping was thus 2*s.* 6*d.* The dumping duty enforced is 6½*d.* a cask. The duty which should have been enforced according to the law as I understand it, is 2*s.* 5*d.* a cask."

The following extract from the Associated Portland Cement Limited's annual report for 1922, dated 15th April 1923, also lends support to the statement that foreign producers export cement to India at below cost of production:—

> "To hold our old standing (export market) connections it has been necessary to sell at net works cost and occasionally even lower."

61. Foreign competition is naturally keenest at all the Indian ports, as the freight on cement for several thousand miles of transport by sea from Europe is generally lower than what Indian Companies have to pay for railway transport to much smaller distances. This Company ought to be in a particularly favourable position to compete with such foreign cement, as it is itself situated at a port but the want of a mercantile marine deprives us of the advantage that would otherwise accrue to us as we have to pay for say Madras a freight of Rs. 22 per ton whereas our European competitors can take cement to Madras for only Rs. 12-8-0 or thereabouts.

62. The low prices at which foreign cement has entered India since the termination of the war are, in our opinion, due to (*a*) the disorganised European exchanges, (*b*) the low freights offered by Steamship Companies in order to keep their vessels employed even at some loss rather than being obliged to lay them up, (*c*) the general trade depression following the war resulting in foreign countries having to export their products even at low prices in order to keep their hands employed and maintain their organization.

63.

	Freight from Porbandar.			Approximate Freight from British or Continental Ports.		
	Rs.	A.	P.	Rs.	A.	P.
Karachi	6	0	0	12	8	0 per ton.
Bombay	6	0	0			
Madras (by sea and rail combined)	21	5	0			

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In the monsoon, no shipment is possible from Porbandar to any of the above ports except Bombay, in which latter case cement can be railed from Porbandar to Bhavnagar and then shipped to Bombay at a freight of Rs. 11 per ton.

64.

	Freight from Porbandar to Per Ton.		Railway Freight from Port of Bombay Per Ton.		
	Rs.	A.	Rs.	A.	P.
Ajmer	15	12	14	12	0
Ahmedabad	11	8	9	1	4
Nagpur	26	8	13	4	0
Surat	13	4	5	10	10
Poona	14	4	4	4	0

65. We have heard reports to this effect but possess no evidence in support of such reports.

66. We consider that as compared with the foreign manufacturer, the Indian manufacturer is at a disadvantage in respect of all the points enumerated herein, except (*d*).

67. We consider that the disadvantages under (*a*), (*e*), (*g*), (*h*) and (*i*) are more or less of a permanent nature. The disadvantages under the remaining heads (*b*) and (*c*) are in our opinion temporary and would disappear within a period of 5 to 10 years. The disadvantage under (*f*) will persist so long as railway freights remain at their present level and continue to constitute a big handicap on the proper distribution of the finished article.

68. The Indian manufacturers of cement except in the case of one or two Companies whose works are situated comparatively near the coal fields are in a disadvantageous situation owing to distance of the coal fields from the factories. This situation, however, has been brought about by force of altered conditions after the works were established. For instance, in the case of this Company, it was estimated when the Company was started that Bengal coal would not cost more than Rs. 15 per ton laid down at the works. The actual cost to-day is Rs. 30 per ton. Similarly as regards freight on the finished product, both sea and rail freights have gone up by more than 50 per cent. over what they were when the works were started.

VII. EQUIPMENT.

69. Yes. Although a small capital outlay is necessary to ensure continuity of full output of 40,000 tons annually. A 40,000 ton unit plant is economically sound practice if location of plant is satisfactory.

70. Yes.

71. 69 per cent. of our total capital outlay has been incurred on plant and machinery.

72. Our Works operate on what is known as the "Dry" Process. The present plant for preparing raw materials consists of Jaw Crushers, Elevators, Rotary (coal fired) Dryers, adjustable feed tables for proportioning raw materials, Ball Mills for preliminary grinding and Tube Mill for fine pulverising followed by mixing and storage silos for the Raw "Meal" or flour. The raw material is calcined in 2 rotary kilns (pulverised coal fired) this section of the plant being fully equipped with electric motors, rotary cooler with air Blast for cooling the clinker, coal crushing and pulverizing plant consisting of Ball and Tube Mills. The calcined material is ground into Cement in the most modern type of combination Ball Tube Mill.

The Power Plant consists of one English Make 840 I. H. P. Horizontal Compound Steam Engine, one Auxiliary Steam Engine of 250 I. H. P. with Babcock and Wilcox Boiler with chain grate stoker of large size supplying all the steam required, with three old Lancashire Boilers of almost equal capacity as "stand-by" steam raising plant. 2 electric alternators are rope driven from the respective engines supplying Power to outlying machines electric motor driven and for Lighting.

73. Our Machinery is now quite up to date and economical.

74. Many improvements have recently been effected in cement making machinery and the process more carefully tuned up to produce a better and stronger cement.

75. Since 1916 we have entirely remodelled our process of manufacture and installed new Plant and Machinery to bring our works quite up to date.

New plant for crushing, drying and mixing our raw materials was installed and came into operation in October 1923; this plant consisted of 1 Jaw Crusher, Conveyors, Elevators, 3 storage silos for crushed and dried materials, adjustable feed tables to proportion materials accurately, shaking and mixing conveyor, etc.

The results have more than fulfilled expectations giving us accurate control over the proportioning of raw materials resulting in great uniformity of the cement produced with largely increased Tensile Strength and uniform soundness.

One small rotary kiln with its attendant cooler, coal crushing, drying and pulverising plant was put into operation in 1920; this kiln was the only one obtainable during the war (when it was bought) and not large enough for our requirements but was purchased to enable us to immediately improve the tensile strength of our cement which was low as the raw materials were calcined solely in a kiln of the vertical continuous type installed in 1914 when same were considered "modern."

As soon as a second rotary kiln was obtainable at reasonable rates one was purchased and the same came into operation in May 1924. Since September 1922 we have been marketing cement made from clinker calcined only in the Rotary Kiln, having abandoned the original Vertical Kiln with its attendant briquetting plant, etc.

The 2nd rotary kiln and auxiliary plant is of the most modern design and is operating very successfully.

With a view to economy we installed, in July 1922, a modern large unit Babcock and Wilcox Boiler with chain grate stoker, economiser, etc., for Steam Raising, and this plant has operated successfully since.

A modern combination Ball Tube Mill for cement grinding was purchased in 1922 and commenced grinding cement in March 1924, giving satisfaction.

Our works are now equipped with all modern machinery and plant, the process of manufacture also being on the same high level enabling us with confidence, to face any competition in regard to quality and to produce a cement which will pass the proposed new revision of the British Standard Specification, revised or modified to suit the Indian Climate.

76. We contemplate only the modification of our spare Ball and Tube Mills to constitute an additional Raw Material grinding plant to ensure that both Rotary Kilns can calcine, continuously to their full capacity, giving us thereby an annual output of 40,000 tons of cement.

77. None of the cement-making machinery was manufactured in India and to the best of our knowledge, no one manufactures such machinery which is in the hands of a few expert manufacturers in Europe and America only. Spare parts for grinding machinery such as liner plates for mills and jaw crushers are now obtainable in India.

VIII. Capital Account.

78. (*a*) *Nil.*

(*b*) *Nil.*

(*c*) Rs. 7,51,168-12-8.

(*d*) Rs. 17,86,062-5-4.

(*e*) Rs. 19,647-12-8.

79. (*a*) The sum of Rs. 41,992-12-10 spent for kiln patent and concession has been written off on 31st December 1918 and the above sum is not shown in the books of the Company at present.

(*b*) *Nil.*

(*c*) The figures shewn represent the actual cost without depreciation.

(*d*) The figures shown represent the actual cost without depreciation except the value of Wolff's engines which became useless and were rejected, *viz.*, Rs. 1,07,035-9-1 and depreciation on Light Railway and Sidings, *viz.*, Rs. 3,000 written off on 31st December 1921.

(*c*) and (*d*) The total depreciation fund accumulated since manufacturing commenced on Building and Machinery is Rs. 6,76,500.

(*e*) The figures given represent the value after depreciation amounting to Rs. 18,705-7-0 has been written off.

80. We have not been able to set aside sufficient amount for depreciation since manufacture commenced as allowed by the Income-tax rates which even we consider inadequate owing to heavy wear and tear of our machinery, as the factory works 24 hours continuously. This was because during the

first two or three years of this Company, there were losses due to trouble with the plant, etc., and again the last two years we have not been able to earn such profits as would enable large sums to be carried to the Depreciation Fund.

81. We estimate Rs. 11,50,000 and Rs. 24,00,000 would be the present cost of building and machinery respectively, whereas the cost of buildings and machinery to date of this factory without deducting any amount for depreciation is Rs. 7,51,000 and Rs. 17,86,000 respectively. The operating cost of an entirely new plant would be less than that of ours.

82.

—	Particulars	Sellers	Rs.	A.	P.	Rate of remittances at average rate of	
1917	Part expenses of rotary Kiln and machinery pertaining to it, *viz.*, Cooler, Clay, dryer, cool dryer, etc., etc.	F. L. Smidth & Co., New York.	62,096	7	0	$ 100	Rs. 296½
1918	Ditto .	Ditto .	2,85,025	0	0	,, 100	,, 280
1919	Ditto .	Ditto .	2,04,711	3	11	,, 100	,, 284½ and 240
1920	Ditto .	Ditto .	9,594	15	0	,, 100	,, 360
1921	Boiler & Economiser .	Babcock & Wilcox.	1,13,810	4	11	1/3	5/8
1922	Ditto .	Ditto .	13,575	4	9	1/3	11/32
1922	2nd Rotary-Kiln Unidan Mill and rearrangement machinery.	F. L. Smidth & Co., Copenhagen.	1,00,105	11	9	1/3	21/32
1923	Ditto . .	Ditto .	2,59,474	4	6	1/4	7/16

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83. (*a*) Authorised Capital, Rs. 60,00,000.

(*b*) Subscribed Capital, Rs. 37,00,000.

(*c*) Paid-up Capital, Rs. 35,50,000.

The shares are divided into 15,186 ordinary shares of Rs. 250 each.

84. The Company has not issued Preference Shares and its Capital is divided into ordinary shares only.

85. The Company has not issued Deferred Shares and its Capital is divided into Ordinary shares only.

86. (*a*) Statement showing the amount of the ordinary paid up share Capital for dividend:—

	Rs.
1913	6,96,900
1914	9,80,100
1915	12,23,800
1916	18,98,800
1917	19,00,000
1918	19,00,000
1919	20,13,730
1920	23,79,490
1921	26,04,420
1922	31,72,250
1923	36,77,150

(*b*) Statement showing the actual amount distributed as dividend on Ordinary Share Capital:—

		Rs.
	1917	15 per share of Rs. 250.
	1918	20 ,,
	1919	35 ,,
	1920	30 ,,
	1921	37/8 ,,
Old issue	1922	22/8 ,,
New issue	1922	5/4 ,,
for 6 months	1923	*nil.* ,,

Statement showing the percentage on the paid up Share Capital of each class which the dividends represent:—

(*c*) 1914	*nil.*		
1915	*nil.*		
1916	*nil*		
1917	6	per cent.	
1918	8	,,	
1919	11	,,	
1920	12	,,	
1921	15	,,	
1922	9	,,	old share
1922	4½	,,	new ,,
1923	*nil.*		

87. Average rate 5·8 per cent. on the old shares and 2·8 per cent. on new shares.

88. Rs. 1,00,000 is the amount of Debenture Loans raised by the Company on the 26th June 1913 at the rate of 5½ per cent. per annum and 30th September 1933 is the day fixed for the redemption of the said loans. No debenture sinking fund has been established by the Company.

89. A sum of Rs. 1 lakh was carried to a reserve for the equalization of dividends from the profits of the year 1921. There are no other reserves. There is however a sum of Rs. 11,37,900 to the credit of Share Premium account.

90. Rs. 60,000 would be required to convert the existing old cement grinding Ball and Tube Mill to a Raw Grinding unit as mentioned in item 76 and being the maximum capacity to 40,000 tons.

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If oil fuel ever becomes available at cheap rates as a substitute for coal fuel we should require some 3 lakhs to make the necessary change in plant equipment and provide oil lighters and storage reservoirs.

91.

IX. COST OF PRODUCTION.

FORM I.

Statement showing the total expenditure incurred on the production of cement during certain years:—

——	1917	1921	1922	1923
1. Raw Materials . . .	28,775	74,675	64,501	51,849
2. Factory Labour . .	41,576	93,847	85,173	61,953
3. Power and Fuel . .	2,15,888	6,20,473	4,54,666	3,03,687
4. Ordinary Current Repairs .	68,984	1,48,553	1,24,350	98,651
5. General Services, etc. .	58,981	1,05,345	1,04,367	1,01,696
6. Miscellaneous . . .	17,010	21,672	20,135	19,089
7. Packing . .	99,912	2,23,887	1,63,470	1,26,271
	5,31,126	12,88,452	10,16,662	7,63,196
Total Production . . .	Tons 14,042	Tons 25,750	Tons 21,261	Tons 14,814

FORM II.

Statement showing the Works' Cost per ton of Cement.

——	1917	1921	1922	1923	REMARKS.
1. Materials . . .	2·04	2·89	3·03	3·50	(a) A portion was packed in old bag.
2. Factory Labour . .	2·96	3·64	4·00	4·18	
3. Power and Fuel . .	15·37	(b) 24·09	21·38	20·50	(b) Owing to high price of coal.
4. Ordinary Current Repairs.	4·91	5·74	5·84	6·67	
5. General Services, etc. .	4·20	4·09	4·90	6·83	
6. Miscellaneous, etc. .	1·21	·84	·94	1·28	
7. Packing . . .	(a) 8·25	(a) 10·	(a) 9·70	(a) 9·25	
	38·94	51·29	49·79	52·21	
Less for Gypsum .	1· 0	1· 0	1· 0	1· 0	
	37·94	50·29	48·79	51·21	

92. The Works' cost increased in the year 1923 owing to the fact that the factory was working at less than its full capacity and hence the following items were affected :—

Factory labour	4·18
Ordinary current repairs, etc.	6·67
General service and supervision	6·83
Miscellaneous	1·28

If it had been possible to run at full capacity the above figures would have been reduced by 50 per cent.

93. No. We furnish below an estimate[*] of the works' cost for some future year on the assumption that an output is obtained equivalent to the full capacity of the plant:—

(1) Raw materials	3·50
(2) Factory labour	3·00
(3) Power and fuel	15·75
(4) Ordinary current repairs and maintenance of buildings, plant and machinery	3·50
(5) General services, supervision and local office charges	3·75
(6) Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	·75
(7) Packing	7·25
	37·50
Less for Gypsum	1·00
	36·50[†]

94. Yes. We have adopted a monthly system of cost accounting and submit herewith a typical sheet for examination.[‡]

95. We are not in a position to furnish the information.

96. Rates allowed by the Income-tax Authorities are as under:—

	per cent.
Cement Machinery	7½
Building housing machinery	2½
Godowns, etc	5
Furniture	1,980

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Owing to heavy wear and tear and to the fact that cement factories have to run continuously for all the 24 hours, we consider the rate of depreciation should not be less than 10 per cent. for Machinery.

97. The statement showing the sum required annually for depreciation at income-tax rates on the total block account if the assets are valued at cost:—

	Rs.
Machinery	1,42,200
Buildings	21,920
Furniture	1,980
TOTAL	1,66,100

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[*] See also Statement II for revised estimate.

[†] This is reduced to Rs. 33·06—*vide* Statement II.

[‡] Not printed.

We consider the rate for depreciation on machinery should not be less than 10 per cent. and accordingly we beg to submit figures as under:—

	Rs.
Machinery	1,89,300
Buildings	21,920
Furniture	1,980
TOTAL	2,13,200

98. The sum of Rs. 2,08,750 will be required annually for depreciation at Income-tax rates whereas Rs. 2,68,750 will be required at the rate of 10 per cent. on manufacture, which we consider suitable.

99. According to the present and full output of the factory, *viz.*, 15,000 and 30,000 tons respectively, the incidence per ton of cement at income-tax rate is Rs. 11·6 and 5·53 respectively, whereas at the rate of 10 per cent. on machinery, the incidence would be Rs. 14·32 and 7·16 respectively. In view of our answer to question No. 81 the incidence per ton of cement at income-tax rate would be Rs. 5·21 and if 10 per cent. is allowed on machinery the incidence would be Rs. 6·71.

100. According to the present output the Company requires Rs. 5,00,000 as working Capital and Rs. 8,00,000 in case the factory works at full capacity.

101. The Company has so far been able to provide all the working capital it requires.

102. *Nil.*

103. Cost of month's output is Rs. 1,25,000 according to works' cost only. The chief reason why Rs. 8,00,000 would be needed as working capital is due to the fact that (*a*) special spare parts of machinery are to be stocked. (*b*) In Porbandar, it is not possible to obtain all kinds of stores immediately and we have to keep the same in stock. (*c*) It is not the practice of buyers to pay cash against delivery which means large outstandings. (*d*) Owing to shortage of wagon supply and also owing to long distance between coal collieries and the factory, we have to keep in stock a sufficient quantity of fuel.

104. The average value of the finished goods stocked by the Company is about Rs. 3,00,000. It takes about 3 to 4 months between production and payment when markets are normal.

105. It is necessary to keep in stock coal of the value of Rs. 75,000 to one lakh when the factory is working continuously which would be only 3 months' supply.

106. The Company has a Head Office in Bombay under the control of the firm of Managing Agents, besides the office of the Local Management at the Works.

107. The annual amount of the Head Office expenses is Rs. 45,000 and Agents are entitled to 10 per cent. commission on the net profit.

108. From and after the registration of this Company a commission at the rate of ten per cent. per annum on the annual net profits of the Company after making all proper allowances and deductions from revenue for interest on loans and deposits and working expenses chargeable against profits but without making any deductions for or in respect of interest on debentures or of any amount carried to insurance reserve depreciation or sinking fund or to any other special fund or in respect of any expenditure on Capital Account.

109. According to the present output the cost of Head Office expenses comes to Rs. 3 per ton whereas on the output equivalent to the full capacity of the plant, it will come to Rs. 1-8-0 per ton. Agents' commission depends upon profit made by the Company.

NOTE.—Corrections have been made in the replies to Questions 98 and 99 in accordance with Mr. Bilimoria's statement during the oral evidence.

X. MANUFACTURER'S PROFITS.

110. Twelve per cent. on Ordinary Shares and 15 per cent. on Deferred Shares.

111. (*a*) 10 per cent. on Preference Shares.

(*b*) 8½ per cent. on Debentures.

The Dwarka Cement Company, Limited, has actually issued 9 per cent. Preference Shares and the Bombay Telephone Company, Limited, holding a monopolist position and with a handsome assured income, could not recently raise a debenture loan at a rate under 8½ per cent.

112. A return of less than 12 per cent. on Ordinary Shares would not attract investors.

113. Rs. 10 is the incidence per ton when the output is equivalent to the full capacity of the plant for declaring a fair dividend on Block Account of this Company.

On the present rate of output the incidence per ton would come to Rs. 20 per ton.

(*b*) The Company has not issued Preference Shares.

(*c*) Rs. 0·183 and Rs. 0·366 are the incidences per ton of cement when the output is equivalent to full capacity of the plant and at the present rate respectively for interest on the Debentures.

XI. CLAIM FOR PROTECTION.

114. The Indian Fiscal Commission laid down the following three conditions to be satisfied by a particular industry before the Tariff Board recommended it for protection:—

(1) The industry should be one possessing natural advantages.

(2) The industry must be one which without the help of protection is either not likely to develop or is not likely to develop so rapidly as is desirable in the interests of the country.

(3) The industry must be one which will eventually be able to face world competition without protection.

Of the above there can be no question that the Cement Industry fulfils the first condition better than any other industry, as all the necessary material is available in large quantities and in different parts of the country and the labour and the markets are also there.

We can also confidently say that if this industry is not allowed to succumb to present abnormal world conditions but is enabled to survive, it will certainly be in a position ten or fifteen years hence to face world competition, because with the great need India has of development of irrigation and other public works, the demand should by them be nearer the present output capacity and enable production to be made in this country at the lowest economic cost. Therefore we think we can confidently say that the cement industry is one that will be able to fulfil Condition 3 abovementioned.

As for Condition 2, the position unfortunately is that the industry has, under the impetus of war conditions and the expectations then raised, developed but too rapidly and as events prove, the present output capacity is far in excess of the present requirements of the country. But we submit that that is all the more reason why steps should be taken to see that it does not succumb to the present abnormal conditions. Condition 2 clearly emphasises the need of development and would even advocate steps to make it more rapid if such development as there was, was too slow in the interests of the country. It could not therefore have been the intention that a largely developed industry should be allowed to go under and disappear and that no efforts should or need be made to save it, because such an attitude would make futile the endeavours and sacrifices made by the country for the development of its industries.

It is therefore, we submit, a necessary corollary of Condition 2 that the tariff should be raised sufficiently high to at least ensure to the manufacturers of this country the full benefits of the markets of their own country and thereby enable them to live.

115. (*a*) Our answer is in the affirmative.

(*b*) Even now the needs of the country can be met twice over by the indigenous product shutting out all foreign imports.

116. The fact that the combined output of the then existing Cement Companies was commandeered by the Indian Munitions Board during the war period is evidence that the industry is of importance on national grounds.

118. Our claim for imposition of protective duties applies to Portland Cement and not any other cements which can readily be distinguished for customs purposes from Portland cement.

119. Before answering this question in detail, we would respectfully point out in view of the present capacity for production in this country being for greater than the present consumption that it will be an economic extravagance to allow any foreign cement to enter the country and that the figure of duty should therefore be put sufficiently high to achieve this purpose. If this is done, then the necessity for special separate measures to counteract the causes named in clauses (*a*) and (*b*) would be unnecessary. However as the Board has asked for our views as to what detailed steps we might think necessary in case they do not approve of our suggestion of a prohibitive duty, we beg to reply as follows:—

(*a*) It is extremely difficult to have any sliding scale of duties that can cope with the wide and sudden fluctuations of exchange, the most recent example of which is the variations both up and down of the Belgian and the French Franc in a very few weeks. A suitable method of meeting the situation is suggested in a latter part of this query under 119 (*c*) for the consideration of your Board.

(*b*) Where a freight subsidy is given a countervailing duty in addition to the normal duty and equal to the freight subsidy would be the right measure.

(*c*) If the Board has arrived at the figure of cost of Indian cement on the respective present outputs of the companies, *i.e.*, the figure which Indian Companies should secure in order to live (and this can be very easily ascertained from the costs that form the basis of payment in the contract with the Bombay development department), it follows that all measures should aim at securing such figures to the Indian Companies. It is impossible to provide in a Tariff Schedule for any sudden changes in foreign selling prices from unforeseen causes but it can be done in another way we submit the following for the Board's consideration:—

(1) The figure reached by the Board as above should be the basis selling price.

(2) The Board may arrive at the figure of the " the normal import price " to-day and the difference between the two might be made a specific import duty per ton.

(3) It may further be provided that on all invoices on which—calculated at the exchange of the day- the importing cost is less than " the normal import price." An additional duty shall be collected equal to the differential between the actual import cost in rupees and the " normal import price."

(4) All invoices for cement (and this should apply to all goods which come under the regime of protective duties if evasions are to be reduced to a minimum) should have consular invoice attached to them to form a satisfactory basis for calculation of the differential.

120. (*a*) The present customs duty of 15 per cent. might have proved useful when cement was quoted at Rs. 100 to Rs. 150. With the low prices at which cement is selling to-day, the duty is not deterrent to the importation of foreign cement by those users who still think English cement superior and more reliable, although there is no longer any ground for such belief and Indian producers are prepared to undergo the strictest tests.

(*b*) Transport charges of foreign cement to Indian Ports are, as shewn elsewhere, actually lower than those insured by Indian producers to most Indian markets and the most important markets are at the ports.

121. We consider that the duty should be such as to effectively prevent the entry of foreign cement when the Indian product is available in any required quantity and of satisfactory quality. It is a sheer economic waste for India to throw away large sums on an article that it can get within its own borders and India cannot afford such waste.

From this point of view, we consider a specific duty of 25 rupees per ton essential, as, then, those that still want foreign cement would have to pay for it and would be gradually forced to see whether they could not, do equally well by using the local product.

Although not owing within the terms of reference to the Tariff Board, we do not think it irrelevant to point out that the stoppage of all unnecessary imports *pro tanto* improves the Balance of Trade of this country and has a strengthening effect on its exchanges and by keeping the money in the country it adds to the store of Capital for industries of which this country is so badly in need. These are considerations that, altogether apart from the saving of a struggling national industry, should have weight both with the Government and the Legislature when the question of a suitable Tariff is under consideration.

It may be contended that there was no meaning in Indian consumers being asked to pay a higher price when they can get the imported article cheaper. But while this seems sound as between one individual and another, the case is entirely different as between one country and another. As a country India has to see whether it is a gainer by imports at a cheaper rate than can be produced in the country. To do this it must see whether the same number of its children as are now employed in the cement industry could produce the same amount of wealth in other occupations. The only occupation that most of them can turn to to-day is agriculture and the committee can easily see that the total increase in national income from agriculture from the labours of the few thousand men now employed in the cement industry would be much smaller than the value of the cement produced by them represents to the country to-day and it would show that the country is distinctly a gainer even if individual consumers had to pay a higher price, but in the case of cement, there is not likely to be even this drawback.

122. It is true that the present productive capacity exceeds the total consumption of the country and that is exactly why we advocate a tariff sufficiently high to keep out foreign cement, because if it can be kept out, the local product would have its market expanded *pro tanto*.

The approximate production by Indian Companies for 1923-24 should be about 250,000 tons and the imports for the same period 110,000 tons. Elimination of such imports by a suitable tariff would have the effect of expanding the market for the local product by over 40 per cent. and would have a very appreciable effect in putting heart into Indian Companies and in cheapening their costs. As even with such expansion the available market would be much under the total capacity of the present works, the consumer would be fully safeguarded because competition among Indian Companies will remain keen on account of the fact that marketing a larger output would mean a lower cost and consequently a greater chance of showing a good margin of profit.

ANNEXURES.

*1. Booklet on cement.
2. Statement regarding total imports into India. (Appendix II.)
*3. Typical statement of cost account.
*4. Agreement with Porbandar State.
*5. Last report and balance sheet of the company.
6. Answer to Question 37. (Appendix I.)

APPENDIX I.

Answer to Question No. 37.

(A) A statement of the total wages bill for Indian factory labour:—

	Rs.
1917	41,576
1918	50,619
1919	55,680
1920	71,067
1921	93,847
1922	85,173
1923	61,953

(B) A statement showing average daily wages per man in the different classes:—

	Rs.	A.	P.	Rs.	A.	P.
	1917-1919			1920-1923		
Shift Engineer	2	5	4	4	5	4
Fireman	0	12	0	1	8	0
Electric Machinery attendants	0	10	0	1	8	0
Cement machinery attendants	0	9	0	1	6	0
Greasers	0	8	0	1	0	0
Stationary Kiln attendants	0	13	0	1	8	0
Stationary Kiln coolies	0	8	0	1	0	0
Semi-skilled coolies labour (male)	0	8	0	0	13	0
General coolies	0	8	0	0	11	0
Female coolies	0	5	0	0	8	0
Fitters and Blacksmiths	1	0	0	2	0	0

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* Not printed.

APPENDIX II.

Question No. 50.

Total imports of cement into India from 1901-02 to 1922-23

Year	tons.
1901-02	34,450
1902-03	32,320
1903-04	46,690
1904-05	62,110
1905-06	89,420
1906-07	85,720
1907-08	89,390
1908-09	98,230
1909-10	100,610
1910-11	126,640
1911-12	116,950
1912-13	160,560
1913-14	146,520
1914-15	144,970
1915-16	131,630
*1915	18,000*
1916-17	89,390
*1916	38,664*
1917-18	83,750
*1917	73,726*
1918-19	27,180
*1918	84,344*
1919-20	91,800
*1919	86,814*
1920-21	130,720
*1920	86,320*
1921-22	124,720
*1921	128,627*
1922-23	133,260
*1922	147,615*
1923-24	113,137
*1924	235,229*

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* Indigenous Production.

Statement II.—Letter, dated 3rd July 1924, from the Indian Cement Company.

With reference to the oral examination of the undersigned by your Board on the 2nd instant, so far as it related to the Works Costs, he pointed out to the President that subsequent to the submission of the Works Costs figures by us (as per Answer No. 93) we have received from our Porbandar Works the actual figures of the cost of running the factory with the complete plant, consisting of the two Rotary Kilns, for the first time for the month of May 1924, and these show a reduction in respect of the following items over the estimated figures of those items in our Answer No. 93:—

	Estimated figures.	Actual figures.	Reduction.
	Rs.	Rs.	Rs.
(1) Raw Materials	3·50	3·06	0·44
(3) Power and Fuel	15·75	14·71	1·04
(4) Ordinary Current Repairs, etc. . .	3·50	2·14	1·36
(7) Packing	7·25	6·65	0·60
Total .	30·00	26·56	3·44

The above will reduce the total cost of production shown as Rs. 36·50, in our Answer No. 93 to Rs. 33·06, and we shall be glad if the Board will see their way to substitute the actual figures in place of those given by us in respect of the four items enumerated above and at the same time reduce the total figure to Rs. 33·06.

In this connection we would kindly request you to alter the words "Less saving by mixing Gypsum" which occur at the conclusion of our Answers Nos. 91 and 93, to read "Less for Gypsum" in order to prevent any possibility of misinterpretation to which the former words may be liable.

We should be obliged if you will kindly intimate to us that our request will be complied with.

Statement III.—Further supplementary statement, dated the 13th September 1924.

We beg to refer to the oral evidence given by representatives of the Cement Companies and with particular reference to certain questions by Mr. Ginwala *vide* pages 47, 136 and 137 of the published evidence tendered by applicants for protection wherein he asked how we would represent in terms of money the difference between cement and lime and what would be the difference in cost 100 cubic feet of work done in cement and lime respectively; as a result of experience in our Laboratories we have pleasure in giving below certain figures which, we trust, will be of assistance to the Board in their investigations as to the possibilities of our developing the demand for cement in India. We have taken basic prices of cement, sand and lime delivered Delhi for our calculations as under :—

Cement at Rs. 40 per ton × 3·7 tons to a brass (100 cubic feet) Rs. 148-0-0 per brass.

Sand Rs. 4-0-0 per brass.

Sutna slaked lime Rs. 20-4-0 per ton × 1·47 tons = Rs. 30 per brass.

Cement Mortars.

Cost of 100 cubic feet cement and sand mortar proportions by volume 1 : 8.

100 cubic feet of cement (dry) mixed with 800 cubic feet of sand, *i.e.*, 900 cubic feet, gave

840 cubic feet of dry mixture which, when mixed with water, gave

823 cubic feet of wet mortar.

100 cubic feet of wet mortar contains 12·148 cubic feet cement
and 97·182 cubic feet sand.

TOTAL 109·330 cubic feet.

$$\frac{12{\cdot}148 \text{ cubic feet cement} \times \text{Rs. } 148}{100} = \text{Rs. } 17{\cdot}979.$$

$$\frac{97{\cdot}182 \text{ cubic feet sand} \times \text{Rs. } 4}{100} = \text{Rs. } 3{\cdot}887.$$

100 cubic feet wet cement and sand mortar cost = Rs. 21·866.

Tensile Strength.

The tensile strength of the above cement mortar equals 97 lbs. per square inch at 28 days.

A *lime mortar* giving 31 per cent. less strength, or 67 lbs. per square inch at 28 days would have to be composed of 1 part of lime by volume to 0·734 parts of sand and would cost Rs. 28·993 per 100 cubic feet of wet mortar. The cost of the above mentioned lime mortar was arrived at using the basic figures of cost for lime and cement quoted and the actual volumes of dry and wet mortar obtained by mixing, as noted below :—

100 cubic feet slaked lime }
73·4 cubic feet sand } gave 135·25 cubic feet dry and 113·6 cubic feet wet mortar.

or

100 cubic feet wet lime mortar required 88·03 cubic feet lime.
64·61 cubic feet sand.

152·64

सत्यमेव जयते

Cost.

$$88{\cdot}03 \text{ cubic feet dry slaked lime costs } \frac{30 \times 88{\cdot}03}{100} = \text{Rs. } 26{\cdot}409$$

$$64{\cdot}61 \text{ cubic feet sand costs } \frac{4 \times 64{\cdot}61}{100} = \text{Rs. } 2{\cdot}584$$

100 cubic feet wet lime and sand mortar costs = Rs. 28·993

The difference in cost of work done in cement and lime mortar on the above basis is noted below :—

> To lay 100 cubic feet of brickwork with ¼″ joints we require approximately 10·06 cubic feet *wet* mortar; and 10·06 cubic feet *cement and sand mortar* (1 : *8 by volume*) costs = Rs. 2·1997.

10·06 cubic feet *lime and sand mortar* (1 : 0·734) costs = Rs. 2·9167.

If you want to compare the costs of cement and lime mortars on the basis of a cement sand mortar in volume proportions of 1 to 8 with lime sand mortars in the usual volume proportions of lime 1 sand 1⅓ the respective costs of 100 cubic feet of wet mortar would be :—

	Rs.
Cement and sand wet mortar	21·866
Lime and sand wet mortar	21·130

In this case you would have a lime mortar about ⅓ the tensile and ⅙ the compression strength of the cement mortar, the cost being about equal.

These facts indicate that there is a wide new field for the use of cement in all districts in India, that the price of cement could increase reasonably without in any way restricting its consumption; that the demand for cement will rapidly increase in the *near* future; that given protection for a few years to shut out foreign cement our factories can go on to 75 per cent. output at once and a full output in a year or two, thus cutting costs of production to favourable limits enabling the Companies to finance an educational campaign for extending the uses of Portland Cement, ultimately firmly establishing the cement industry as an essential part of the economic development of India and, with a general trade recovery in the world, protection could be removed in, say, 5 years leaving our Cement Factories so firmly established in the interior markets of India as to be able to compete in the ports with imported cements.

Cost of lime.—Please refer to page 136 of the Indian Tariff Board's booklet on cement in which Mr. Symons was supposed to have stated that lime at Delhi costs Rs. 21 per brass (100 cubic feet). This figure should be Rs. 21 per ton and we shall thank you to make the necessary correction.

Statement IV.—Further supplementary statement submitted by the Indian Cement Company, Limited, dated the 24th September 1924.

With reference to your letter No. 883, dated the 17th instant, we send herewith a statement showing the distances of stations from Bombay, with freight worked out per mile, together with particulars regarding rate of freight applicable on the B., B. and C. I., G. I. P. and Kathiawar Railways.

As for information regarding state subsidies in Japan we regret we have no authority that we can quote or refer to.

Statement showing rate of freight applicable on B., B. and C. I. Railway, G. I. P. and Kathiawar Railways, for cement packed in bags and for quantity not less than a wagon load.

Kathiawar Railways.	B., B. and C. I. Railway.	G. I. P. Railway.
The rate is Re. 0-4-0 per mile per one meter-gauge wagon of 7 tons. 7 cwts, and hence the rate comes to 0·24 pie per mile per maund.	The rate is based on "H." telescopic schedule.	The rate is based on "G" telescopic schedule.
	1 to 75 miles 0·30 per mile per maund.	1 to 100 miles 0·240 pie per mile per maund.
	76 to 300 miles 0·17 per mile per maund.	101 to 200 miles 0·200 pie per mile per maund.
	301 to 500 miles 0·15 pie per mile per maund.	201 to 400 miles 0·175 pie per mile per maund.
	Over 500 miles 0·10 pie per mile per maund.	Over 400 miles 0·100 pie per mile per maund.

From the following particulars it will be noticed that railway freight worked out per mile per maund from Bombay is cheaper than that from Porbandar:—

Distance miles.	Name of Stations.	Freight per Maund.			Freight worked out per mile per maund.		
		Rs.	A.	P.	Rs.	A.	P.
862	Bombay to Delhi	0	10	8	0	0	0·148
819	Porbandar to Delhi	0	11	11	0	0	0·175
613	Bombay to Ajmer	0	8	8	0	0	0·169
584	Porbandar to Ajmer	0	9	3	0	0	0·190
466	Bombay to Ujjain	0	7	4	0	0	0·188
586	Porbandar to Ujjain	0	9	4	0	0	0·191
567	Bombay to Khandawa	0	8	3	0	0	0·174
687	Porbandar to Khandawa	0	10	7	0	0	0·184

Statement V.—Replies to Questionnaire (1) (b). (Letter, dated 2nd December 1924.)

With reference to your letter No. 1274, dated the 22nd ultimo, we have the honour to enclose a schedule showing the figures called for in paragraphs 2 and 4 for the total despatches* of cement, the total output of factory, etc.

As regards your enquiry in paragraph 3 of your letter under reply, we have to state that the differences in figures to which you refer are accounted for by the causes mentioned under sub-heads (1), (2) and (3).

With reference to your enquiry in paragraph 5 of your letter, regarding packing of cement in barrels, we beg to submit that the cost of packing cement in barels is not only excessive but quite prohibitive, as compared to the cost of packing cement in bags which will be seen from the following figures:—

	Per cask.		
	Rs.	A.	P.
Cost of material, *i.e.*, casks, staves, and heads as per enclosed quotation, dated 18th November 1924, from Messrs. Harrison and Crosfield, Quilon, for your information c.i.f. Bombay	2	1	0
Freight to our works Porbandar	0	2	0
Making lining with paper and iron hooping casks	0	10	0
	2	13	0

Rs. 2-13-0×6 casks to one ton of cement for packing one ton of cement in barrels = Rs. 16-14-0.

Copy of a letter from Harrison and Crosfield, Limited, dated Quilon, the 18th November 1924, to the Indian Cement Company, Limited, Bombay.

With reference to your letter No. G.-325 of the 5th instant, we have pleasure in advising that we are sending you samples of cement barrels, staves, tops and bottoms. We are sending you two kinds:—

1. Barrel in Cheeni, staves, tongued, grooved and shaped.
2. Barrels in cotton wood rough sawn and shall be glad of your report as early as possible. The question of tongueing, etc., is left entirely to you as we are quoting for both types as follows:—

We regret we are unable to quote f.o.r. Banmor as rail freight is prohibitive but we can quote c.i.f. Bombay as follows:—

Cement barrels, 28″ high, tops and bottom 16½″ in cheeni or cotton wood ½″ planks tongued, grooved, shaped and champered, Rs. 2-1-0 each, c.i.f. Bombay, bundled with coir rope.

Cement barrels rough sawn sizes for above dimensions Rs. 1-13-0 each bundled with coir and delivered c.i.f. Bombay.

For the present samples we have sent all 3″ staves but you will, of course, understand that this cannot always be done and the staves may vary from 2½″ to 4″ in width. For your guidance we have marked the inside of the barrel.

As regards output, we have now ample facilities for an outturn of 3,000—4,000 barrels monthly but this can be considerably increased if required.

We are shipping packing boards and boxes to Bombay and there is no difficulty over landing these. We trust that we may be able to arrange good business to our mutual advantage.

Reply to paragraphs 2 and 4 of letter No. 1274 of 22nd November 1924, from the Secretary, Tariff Board.

Total output of our factory for six months from 1st April.

	Tons.
1923	9,198
1924	5,860

Note.—The figures for despatches have not been printed.

Statement VI.—Further supplementary information submitted by the Indian Cement Company, Limited, dated 2nd February 1925.

We are in receipt of your wire of the 31st ultimo.

Please note that this Company's total output and total despatches for the calendar year 1924 are 10,983 and 12,282 tons respectively.

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* Not printed.

THE INDIAN CEMENT COMPANY.

B.—ORAL.

Messrs. P. J. BILIMORIA and R. S. SYMONS, recorded at Simla on Wednesday, the 2nd July 1924.

Mr. Bilimoria.—May I at the outset draw your attention to the statement which has appeared in the *Times of India* in connection with the evidence of the representative of the Central Provinces Portland Cement Company, where he is reported to have stated—I have got a telegram from my Bombay office asking me to contradict that statement—that there is some trouble with raw materials at Shahabad?

Mr. Kale.—What he said implied that it was just possible that the raw materials at Shahabad might not be as good as the raw materials of his Cement Company.

Mr. Bilimoria.—The Shahabad Company is our own Company. Tata Sons, Limited, are the agents. This statement is absolutely unfounded.

Mr. Ginwala.—Have you started your works at Shahabad?

Mr. Bilimoria.—They are under construction. We shall be finishing in about six months' time.

President.—It was something like this. I put it to him that if the Madras market was to be captured, it would have to be done by a company whose works were a great deal nearer Madras, and my recollection is that he replied that the materials in his concern were better than those of the Shahabad Company and that, therefore, he could still hold his own in the Madras market.

Mr. Bilimoria.—That was a prejudicial statement, prejudicial to our own Company and made without any foundation, and I just ask your leave to contradict that statement with all the emphasis I can command, and to say in addition that at none of the cement works in India are the raw materials more suitable for the manufacture of cement than the raw materials at Shahabad.

Mr. Ginwala.—How far is Shahabad from Madras?

Mr. Bilimoria.—It is equidistant from Madras and Bombay. It is about 375 miles from each of these two places.

Will the Board take a note of what I said now. That statement is calculated to affect us prejudicially. At present we are negotiating for further finance for that Company and such a statement, if it is published, would be adverse to the success of our negotiations.

Mr. Ginwala.—So far as we are concerned, what you have said has been taken down. So far as the press is concerned, you can do what you like.

President.—I would like to thank you for the very full statements that you have given us on behalf of both the concerns in which you are interested. The first point I want to ask you about is on page 2 of the representation of the Indian Cement Company. You say that the most important factors in selecting the site for a cement factory in India are five in number. Have you arranged them in what you consider them to be the order of importance?

Mr. Bilimoria.—They are not arranged in the order of importance. If you arrange them in the order of importance, (3) would come first, that is, suitable fuel supplies within reasonable distance of the Works site.

President.—You would put that first? Surely the vicinity to your raw materials is more important than that. After all, you have got to move more than a ton and half of raw materials for every ton of cement, whereas you have only got to move about half a ton of coal. Surely the raw materials would come first.

Mr. Bilimoria.—Yes, as regards the distance involved.

President.—Then fuel, and after that?

Mr. Bilimoria.—Yes; after fuel (4) would be the next important consideration, that is, close proximity of the site to large cement consuming centres and easy access to the Railways feeding those centres.

President.—Labour and water supply are less important?

Mr. Bilimoria.—Yes.

President.—You say at the end of your answer to Question 10: "But there is still a definite bias in the minds of certain consumers in favour of English cement which enables it to command a few rupees premium." What would you say from your experience is the difference between the prices of the Indian cement and imported cement on that account? Supposing there were no overproduction in India, and supposing Indian cement was competing against English cement in the ordinary way, what do you think would probably be the difference in the price?

Mr. Bilimoria.—About Rs. 8 a ton.

President.—As much as that?

Mr. Bilimoria.—Yes.

President.—Why should it be so much?

Mr. Bilimoria.—There are certain people who are always more or less led by sentiment and biassed in favour of articles which are English, although they can get Indian articles of equally good quality.

President.—That I understand. We have had evidence from several industries to a similar effect. In the case of steel, we were told that the Tata Iron and Steel Company sold just a little below the price of imported steel. In their case, the difference, as far as I could gather, was something like Rs. 5 to Rs. 8 a ton, but that was on a price of about Rs. 150. Rs. 5 to Rs. 8 on Rs. 60 is a much bigger percentage.

Mr. Bilimoria.—Yes.

President.—What I want to get at is whether there is any special reason why the difference should be so high in the case of cement?

Mr. Bilimoria.—No, I could not give any other special reason than what I have stated here.

President.—After all, for the last two years, there has not been much practical opportunity of testing it because, as I said, for other reasons, the difference in price has been very much greater than that.

Mr. Bilimoria.—Yes.

President.—It is possible that when the consumption has increased and the demand has overtaken the supply, the prejudice may have been overcome, and the difference would then be much smaller?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—You have given the full capacity of your works as 30,000 tons.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—But you have never got up to that, even when the market was better?

Mr. Bilimoria.—This capacity of 30,000 tons has been attained only recently for the last three months, when we completed the installation of the second rotary kiln mentioned here.

Mr. Ginwala. Before that what was your capacity?

Mr. Bilimoria.—24,000 tons, whilst we were running the rotary kiln in conjunction with the vertical kiln; 16,000 tons after discarding the latter.

Mr. Ginwala.—You commenced your manufacture in 1914. What was your capacity then?

Mr. Bilimoria.—Then we had not got any rotary kiln. Acting under the advice of an expert English cement engineer, we had put up a kiln of the old vertical type, whose capacity was estimated to be, and understood to be, 30,000 tons, but from the very commencement it began to give us very great trouble both in our output and in quality, and finally after several experiments and trials and alterations, we had to discard that kiln absolutely about two years ago.

Mr. Ginwala.—In your answer to Question 9, you refer to some alterations in the specifications. By the alterations are these specifications intended to be relaxed or tightened up?

Mr. Bilimoria.—Tightened up; but only as regards temperature they are going to be a little easier in this way. The temperature of the testing room is nowhere near the temperature specified in the British Standard Specification. It is meant mostly for cold climates. Therefore there has always been some difference as regards tensile strength or growth of tensile strength when the tests are carried out in a warmer temperature, and at the same time we have to conform to the standard of tensile strength laid down by the British Standard Specification.

Mr. Ginwala.—Is this tightening up going to help you? You urge the point as if it is going to be to the advantage of the cement manufacturer in India.

Mr. Bilimoria.—It will help us in this way. At present if the cement does not conform to the tensile strength or as regards its growth during the three weeks, the fault may be not due to the cement but to the temperature in which the test is carried out, and so, if that element of temperature is rectified or eliminated altogether, that apparent defect will not hereafter arise.

Mr. Kale.—With regard to these Standard Specifications, you point out—and we have that in evidence also from other firms—that a Sub-Committee is enquiring into this question. Who has appointed this Sub-Committee?

Mr. Bilimoria.—I believe that it is the Architects and Engineers Association of India in Calcutta who have been considering this question for several years, and I believe, with the consent or with the approval of the Testing House officers in Alipore, they have been informally considering the several points. They have co-opted certain men connected with cement works in India, and I believe that they will submit their report to the Testing House officers who will then make the recommendations to the Government.

Mr. Kale.—I have seen an allegation made in the press that with reference to your answer to Question No. 10, that Government and other engineers favour English cement even when equally good cement is available in this country.

Mr. Bilimoria.—That is quite right.

Mr. Kale.—Is this your experience? Is this allegation right?

Mr. Bilimoria.—As I say in the latter portion of that statement, this prejudice is gradually dying and will die out, but it still persists and it is there. There can be no question about it. There are certain engineers in the Public Works Department who have nothing to say against the Indian cement, but they want to be always safe as regards their work. They would not take the so-called risk or chance. They always prefer to use English cement on their works, even though it may cost a few rupees more.

Mr. Kale.—But there is no idea to favour English cement as against Indian cement, simply because it is English cement.

Mr. Bilimoria.—I cannot say that that is the prevailing idea in their minds. I think that it is more or less a bias in their mind.

Mr. Kale.—So it is only an honest bias?

Mr. Bilimoria.—Yes.

President.—I take it that, if any case of that kind came to your notice, you would bring it to the notice of the Indian Stores Department, because they are anxious to prevent that sort of thing.

Mr. Bilimoria.—Quite so.

II. RAW MATERIALS.

President.—To go on to the raw materials section: you say in your answer to Question 11 that limestone, siliceous stone and clay are used in your factory. Why exactly do you require the siliceous stone? Yours is the only firm that uses that.

Mr. Bilimoria.—Because siliceous stone contains more silica in it.

President.—Is it because your limestone differs from the kind obtainable elsewhere, or is it because your clay differs from what is obtainable elsewhere?

Mr. Symons.—Limestone differs in quality. We use siliceous stone in the same way as you have to sometimes use two different kinds of chalk in England to obtain the necessary ingredients.

President.—That is to say, some ingredient normally present in the limestone is not present in sufficient quantities, and it has got to be supplemented in this way?

Mr. Symons.—Yes, in order to have the correct proportions.

Mr. Ginwala.—What property has it got that you require in the manufacture of cement?

Mr. Symons.—It is better for calcining purposes.

President.—I think that what Mr. Ginwala means is this. Supposing you did not use siliceous stone, what unfavourable consequences would follow?

Mr. Bilimoria.—The chemical composition of cement is more or less fixed, and certain proportions of certain ingredients must be present.

President.—It means that you must conform to the specification?

Mr. Bilimoria.—Not that.

President.—I am afraid I have not got it.

Mr. Ginwala.—Now there is a certain amount of silica in the siliceous stone.

Mr. Bilimoria.—There must be a certain amount of silica in the raw materials.

Mr. Ginwala.—Why do you want that? To produce what effect in the cement?

Mr. Bilimoria.—You must have certain ingredients in your raw materials to produce cement.

President.—We are not getting any further. The point is this. There are two possibilities. One is that the specification says that cement is to contain a certain proportion of silica. Very well, if you are selling cement according to the standard specification, you must conform to it. But there is another point which may also arise, namely, that, if the silica is absent or is not present in sufficient quantities, the cement may lack some quality which it ought to possess.

Mr. Bilimoria.—The resultant product would not be as good a cement as it should be if the silica is not present in sufficient quantity.

President.—What Mr. Ginwala wants to get at is: in what respect would it be likely to fail?

Mr. Symons.—It would probably be lower in tensile strength due to insufficient calcination.

President.—That is what he wants.

Mr. Ginwala.—Then I take it that in other limestones the quantity of silica required is present?

Mr. Bilimoria.—Yes. For instance, in Gwalior, we don't want silicious stone, because the whole of the ingredients are contained in the limestone itself.

President.—You are unusually fortunate there.

Mr. Bilimoria.—Very fortunate indeed.

Mr. Kale.—I thought that silica was contributed by clay and that limestone was more or less pure limestone.

Mr. Symons.—No.

Mr. Kale.—Now you state that limestone must contain not only the element of lime but also the element of silica?

Mr. Symons.—It is difficult to answer such questions.

President.—All these things have got to come from somewhere, and there is no sort of obligation that they should come from one source rather than from another source.

Then, in your answer to clause (*b*) of Question 13, you say that the wastage during calcining will be about 37·68 per cent.

Mr. Bilimoria.—Yes.

President.—In your answer to Qustion 18 you say " In lieu of all royalties directly leviable on raw materials, the Porbundar State charge a royalty on the cement produced therefrom at the rate of annas five per ton of cement." That is practically 3¼ annas per ton of limestone.

Mr. Bilimoria.—Yes, if you consider only the limestone.

President.—I see that there is also clay.

Mr. Bilimoria.—Yes, and also silica which comes from the quarries.

President.—After all, there would not be a large market for these, but as regards limestone, they are constantly selling to other people?

Mr. Bilimoria.—Yes.

President.—In the case of clay, the cost of drying comes to a considerable amount?

Mr. Bilimoria.—Yes.

President.—Is that because it is not in the form in which you can take it? One can understand that it has got to be dried first.

Mr. Bilimoria.—Yes.

President.—In reply to Question 27, you say " we do consider the existing freight rate of Rs. 5 per 200 maunds from the quarries to our Works (10 miles) excessive." Well, I have worked out the rate. That is apparently about half a pie per maund per mile.

Mr. Bilimoria.—Yes.

President.—You say that you consider that excessive. Is that because you know of other rates given perhaps by other railways which are a good deal less?

Mr. Bilimoria.—The lowest rate which is applicable to coal is 1/10th of a pie per maund per mile. I suppose you will take that as a basis per maund per mile.

President.—Is that the lowest coal rate?

Mr. Bilimoria.—That is what I understand. Compared to that, it is five times higher.

President.—What is running in my head is the rate that the Tata Company got for their coal to Jamshedpur.

Mr. Bilimoria.—That must be a special arrangement. As I have stated elsewhere, the rate was formerly lower and it has now been increased during the last five years by 150 per cent.

President.—I am prepared to believe that. One's own experience convinces one that the railway rates have distinctly increased.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—Has it gone up as much as 150 per cent.?

Mr. Bilimoria.—Formerly it was about Rs. 2 per 200 maunds per mile.

Mr. Ginwala.—Did you not make any agreement with the State? The railway belongs to the State, I think.

Mr. Bilimoria.—This railway belongs to the Porbundar State, but there was nothing in the agreement relating to the railway freight, because we were satisfied with the then existing railway freight. Subsequently this railway was transferred to the Gondal State. It is only recently, from the 1st of April this year, that it has again been in the hands of the Porbundar State. We have recently made a representation to them for a reasonable reduction in the rates.

President.—The point I was going to suggest was this: that the railways generally give a concession rate whenever the distance to be travelled is long, but they don't give it when the distance is short.

Mr. Bilimoria.—The point is this. Our Works are situated at the Porbundar Dock, or harbour, and there is a very large trade in the Porbundar stone for building purposes between the quarries and the harbour.

President.—What rate do they charge for the building stone?

Mr. Bilimoria.—The same rate.

President.—I don't want to express any opinion about it, because I have no knowledge of the conditions and cannot judge whether it is a fair rate or not.

Mr. Ginwala.—Is that a light railway?

Mr. Bilimoria.—It is a metre gauge railway.

Mr. Ginwala.—How do the rates compare with the broad gauge rates? Are they not higher than the broad gauge rates?

Mr. Bilimoria.—I don't think that they are higher.

Mr. Ginwala.—How do your rates compare with the ordinary rates?

Mr. Bilimoria.—This rate is obviously higher than the rate prevailing for long distance traffic in Kathiawar.

Mr. Ginwala.—How does it compare with the ordinary rates prevalent in the locality for short distances?

Mr. Bilimoria.—Do you mean for a distance of 10 or 15 miles?

Mr. Ginwala.—That is the way to compare. You cannot take a short distance rate and compare it with a long distance rate and then say that the rate is high.

Mr. Bilimoria.—My point is this. Here is a continuous traffic offering itself to this railway—thousands of tons of materials requiring to be transported in one year—and therefore there must be some special concession.

President.—I do not know. If I were running a railway on commercial lines, I might wish to impose the highest rate that the traffic could bear. Is not that what a railway is commonly supposed to do?

Mr. Bilimoria.—What we feel is—though I am rather diffident in telling you about it—that the railways consider themselves to be in a monopolistic position, because they know that we have got to accept any rates that they want to impose on us. Otherwise we have no alternative left.

Mr. Ginwala.—The Gondal State is rather stringent.

Mr. Bilimoria.—It was. Now that this railway has passed again into the hands of the Porbundar State, we are hopeful of getting some reduction because of our relations with the State which is largely interested in the welfare of our Works.

Mr. Ginwala.—What difference does it make in rupees?

Mr. Bilimoria.—It would be about Rs. 15,000 a year.

President.—It would mean eight annas a ton on the cost of your cement?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—Even if your freights are high, in the matter of royalty you are not unfavourably situated. One may be set off against the other.

Mr. Bilimoria.—No, we are not unfavourably situated.

Mr. Ginwala.—In answer to Question 16 you say that 83·78 per cent. of the raw materials are drawn from the well-known Porbandar limestone quarries. What about the rest?

Mr. Bilimoria.—The rest are drawn from other places nearabout. That is mostly clay and sand, the latter of which we have recently been substituting partially in place of silica stone. There will be required ·275 tons of clay for making one ton of cement. So, the rest of the material is principally clay and some sand which, as stated above, we have been recently substituting for silicious stone.

Mr. Kale.—Your quarry is at a distance of 10 miles from the works?

Mr. Bilimoria.—We could not have helped it. Otherwise we would have located our Works at the quarries, which would have meant other inconveniences in the matter of coal and so on.

Mr. Kale.—All things considered, this is the best locality?

Mr. Bilimoria.—Yes: we are near the harbour now: otherwise we would be 10 miles away from it.

President.—What quantity of gypsum do you use?

Mr. Bilimoria.—About 5 per cent., *i.e.*, 5 tons in about 100 tons of cement, but the quantity depends on the time of setting that we want. Gypsum is required for regulating the setting time.

Mr. Symons.—According to the winter or summer time the amount of gypsum varies—say up to 5 per cent. in the maximum. If the cement is made in the ordinary way we should make it of one setting time which is good for summer or winter. This is the standard setting.

President.—So that your customers, if they want to use it in a particular season, will let you know and you will arrange accordingly?

Mr. Bilimoria.—Yes.

President.—Where do you get your gypsum from?

Mr. Bilimoria.—Usually from Bhavnagar State, which is a considerable distance from our factory. In fact a large part of the price of gypsum is the freight, namely, Rs. 16. The gypsum fields are not connected with railways. It has to be brought to Bhavnagar and then by rail to the Works.

President.—From Bhavnagar State it cannot cost you much in freight.

Mr. Bilimoria.—It costs Rs. 2 to Rs. 3 at the place where it is got, and Rs. 21 at our Works.

III. LABOUR.

President.—Coming to the next section, labour, there is a slight discrepancy between your answers to Questions 32 and 33. In the answer to Question 32 you say "for a few years imported skilled labour is necessary" and in answer to Question 33 you say "at present no imported labour is engaged but one skilled European kiln burner or attendant would be necessary when the factory works to full capacity."

Mr. Bilimoria.—It is not clearly put in here: the word "but" means "except."

President.—Apart from the General Manager and the chemist the only European, apparently, is the kiln burner; that is the only other branch in which you want skilled supervision which you cannot at present leave to an Indian?

Mr. Bilimoria.—Yes.

President.—As a matter of fact, compared to other industries, you are better off in this respect that you have to employ a very small number of men who come from outside India.

Mr. Bilimoria.—Yes, but this is a small industry.

President.—Could you tell us the total salaries of the three men?

Mr. Bilimoria.—The total of the three together,—salary of General Manager, Chemist and Kiln burner—is Rs. 3,300.

President.—If, as you hope you would be able to do eventually, you substitute them by Indians, their salaries would be about Rs. 2,000?

Mr. Bilimoria.—I should expect so.

President.—On that basis your extra charge is Rs. 1,300 a month.

Mr. Bilimoria. I may mention that for these European officers we have to find houses or to rent houses for them, to supply them with servants, and to supply them fuel and these are the ordinary conveniences which they always expect from us. These are to be added to the charges.

President. How much would you add on that account?

Mr. Bilimoria.—I would add about Rs. 300 to that figure: *i.e.*, Rs. 1,600.

Mr. Ginwala.—Do you expect the Indians to do without these?

Mr. Bilimoria.—I should expect them only to want houses.

President.—The thing is, as time goes on, you will find that the Indian standard is rising. However, that would come to about something less than Rs. 20,000 per annum. On 30,000 tons it would amount to 10 annas a ton.

Mr. Bilimoria.—Yes.

President. In Question 36 you say that the Indian labour numbers 348. If you were running your factory to the full capacity of 30,000 tons how many more men would you employ?

Mr. Bilimoria.—This is the number required to run the factory at full output.

President.—Do you happen to know any factory in Europe with about the same output? How many men would probably be employed there?

Mr. Symons.—Not quite so many as that, but it depends so much on the works. Some works have their raw material supplied to them: others quarry that.

President.—You have got to exclude the quarrying labour to make the figures comparable with yours.

Mr. Symons. With an output of 30,000 tons I should say, judging from one or two I know, it would be 160 men.

President. What I was rather suggesting is this. Supposing the figures are say 160 and taking that to be the number employed in Europe in works of the same capacity, since the wages of the European workmen would be more than twice the wages of the Indian, you apparently have some advantage in respect of the cost of labour as compared with the British factory.

Mr. Bilimoria. There is first a less number of men wanted there and then there is the larger efficiency.

President.—After all we assumed that they had got the same output as you have. The question is this. Would a factory with an output of about 30,000 tons in England be regarded as a very small one? Would it be well below the average size?

Mr. Symons.—There are some with as low an output as 100 tons a week and there are others with 4,000 to 5,000 tons a week. Even to-day there are works turning out 100 tons a week.

President.—Coming to the point we were on, you say in order to get an output of 30,000 tons you have to employ 160 men. On that basis it would seem that the Indian manufacturer has some advantage in the cost of labour; although he has employed twice as many men, his total wage bill would be smaller.

Mr. Symons.—They carry on other industries connected with the work, such as making casks and other stave work. If you eliminate these it would reduce the number possibly to 120 to 130. That is the minimum.

President.—Even so, how do the rates of wages compare?

Mr. Symons.—I do not know the wages there at the present time.

President.—I do not think you would get a great many British workmen to work at Rs. 1-8-0.

Mr. Symons.—No.

President.—On the basis of 120 it still looks as if you have a certain advantage in the cost of labour. I want to get a general idea in order to balance the advantages and disadvantages. I want to know where you have got strong points and where comparatively weak points.

Mr. Symons.—Yes.

Mr. Ginwala.—In your wage bill in the annexure to answer 37 the total has gone up from Rs. 41,576 in 1917 to Rs. 61,953 in 1923.

Mr. Bilimoria.- Yes.

Mr. Ginwala.—Your output is the same practically, so that it is due to a rise in wages, not a rise in the number of men?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—It may be due to some alteration of your system. If you take the percentage of increase it is about 100 per cent. In the artisan class of workmen the increase has been 100 per cent., and in the menial class about 37 per cent. When did you give your increase in wages?

Mr. Bilimoria.—There have been different stages.

Mr. Ginwala.—When was the last increase given?

Mr. Bilimoria.—The first increase commenced in 1917 and the last one about 2½ years ago, which was given after a strike.

President.—In answer to Question 42 you say "electric power is used on certain outlying units of the plant, the alternators being rope-driven." Do you produce the electricity yourself?

Mr. Bilimoria.—Yes.

President.—I do not know what "the alternators being rope-driven" means.

Mr. Symons.—There is a large pulley on the engine. The engine will be here and the alternator there, and the rope will drive the alternator.

IV. Power.

President.—Then in answer to Question 45 you say "50 per cent. of the fuel comes by rail a distance of 885 miles and 50 per cent. by rail about a distance of 1,442 miles." The first 50 per cent. is that from the Central Provinces coalfields and the second is from the Bengal fields?

Mr. Bilimoria.- Yes.

President.—I take it you use the Bengal coal for the kiln generally and that the Central Provinces coal would not be quite good enough for the kiln?

Mr. Bilimoria.—We mix both coals for use in the kiln.

President.—You have given us prices f.o.r. works siding at Rs. 19 and Rs. 31. I wonder if you could divide that into original cost and freight.

Mr. Bilimoria.—Rs. 5-4 is the cost of slack coal per ton and Rs. 13-12 would be freight and everything—I mean transportation charges. Rs. 11 is the pitsmouth price of first class Bengal steam coal, and Rs. 20 is the freight.

Mr. Ginwala.—Is this one of the Railway Board arrangements or is it independent, this price of Rs. 11 a ton?

Mr. Bilimoria.—It is the pitsmouth price of the coal.

Mr. Ginwala.—Is it the ordinary market price or is it under any special arrangements?

Mr. Bilimoria.—It is the market price on a contract of 1,000 tons even to-day. We bought out last supply from Messrs. Andrew Yule at Rs. 11-4.

President.—That is to say, you make a contract for a certain quantity to last you for a certain time. It is a short-term contract.

Mr. Bilimoria.—It is only a small contract for a very small quantity of 500 tons. Under present conditions we cannot make long-term contracts.

Mr. Ginwala.—Why do you not get some of Tatas' coal?

Mr. Bilimoria.—We did try it and the cost of Rs. 7 *ex* pitsmouth *plus* freight comes to Rs. 27, but we find that it is better to use this particular Bengal coal which has got a low ash and a higher carbon. It is only one colliery of Tatas' that we tried and the other was not available.

Mr. Ginwala.—Can you give us the rates at which you purchased your coal in previous years, say in 1917?

Mr. Bilimoria.—I can give you the maximum rates which I have got in my memory.

Mr. Ginwala.—Look at your forms at page 21. Will that give a rough idea of the proportion—15 to 20?

Mr. Bilimoria.—The highest price we paid for Bengal coal was something like Rs. 22 per ton just before the close of the war.

Mr. Ginwala.—That is not borne out by the figures that you have given on page 21—Question 91.

Mr. Bilimoria.—The total cost was Rs. 2,15,000.

Mr. Ginwala.—The output is pretty much the same so that these are comparable. I simply wanted the price of coal in 1917, and if you do not know it, you may tell me whether I can take it in the proportion of 15 to 20.

Mr. Bilimoria.—In 1919 or 1920 the price was higher.

Mr. Ginwala.—Probably it was higher still in 1921?

Mr. Bilimoria.—In fact in 1921 and 1922 we got all our coal from Wales in steamer loads and the coal I know cost us Rs. 50 a ton laid down at our Works, because we could not get wagons and we had to do it: otherwise we could not carry on and it was worth while to pay Rs. 50. So it must be in 1920 and 1921 that we paid high prices.

Mr. Ginwala.—Your coal has gone up in the proportion of 15 to 20. Will that be right as compared to 1917?

Mr. Bilimoria.—1917 as compared with 1923; that proportion will be all right I think.

President.—I notice that the rate you have given for the transport of Central Provinces coal comes to 1/9 of a pie per maund per mile.

Mr. Bilimoria.—It must be 1/10 about. There was recently a reduction.

Mr. Ginwala.—Is there no sea communication between you and Bengal?

Mr. Bilimoria.—There is, but that does not come any cheaper. The Bengal coal, if carried by sea from Calcutta to Porbunder, will come this way; from the Bengal coalfields to Howrah and then down the Hooghly river would cost about Rs. 5-8-0. Then there is the sea-freight of about Rs. 12 at present and then there are the charges of transporting coal from the steamer into small boats or lighters, which comes to about Rs. 2.

Mr. Ginwala.—What lines are run between Porbundar and Calcutta?

Mr. Bilimoria.—The B. I. S. N. Scindia Navigation Company is running but that is generally for large quantities.

Mr. Kale.—Is coal ash a disadvantage in the manufacture of cement?

Mr. Bilimoria.—A higher ash in the coal detracts from the quality of the manufactured article.

Mr. Kale.—I got the impression when evidence was given on behalf of another firm that coal ash was not disadvantageous and, on the contrary, it improved the cement.

Mr. Bilimoria.—The more ash there is in the coal—by the mixture of the ash with the clinker or cement—the quality will deteriorate. There is no question about that. The tensile strength will be affected.

V. MARKET.

President.—In Question 50 on page 8, you begin by telling us what Mr. Musgrave and Mr. Davies have written in the Indian Munitions Board Handbook. I have two comments to make. One is that to a large extent the increase in consumption they predicted has already occurred, and it cannot be assumed that the increase is going to go on steadily and indefinitely at anything like the same rate.

Mr. Bilimoria.—Past experience and an examination of the figures in the past would justify such an opinion.

President.—You are referring to the total consumption figures. Undoubtedly there has been a remarkable increase in the last few years. The present consumption is nearly ten times the consumption of 1901. That is an undeniable fact, but it is a bit of a gamble if you ask the Board to assume that it is going to go on indefinitely. Another point is this: What Mr. Musgrave and Mr. Davies told us was said at a time when everybody was inclined to be sanguine. A good many industries were started on expectations which seemed to be well-founded, and subsequently came to grief. Therefore one has to discount a little all the statements that were made at that time. Lower down in the bottom of the page you say: "The diversified uses to which Portland cement can be put particularly on account of its prevalent low prices will induce a larger demand for it in other directions, and specially as a substitute in place of lime mortar." If it is to make any progress in that direction not only the prices have got to stay low but probably have got to go lower.

Mr. Bilimoria.—In the initial stage; but when the engineers come to know the advantages of using cement in place of lime and the efficiency of the work resulting therefrom, I think, as time goes on, they will not be disinclined to pay a reasonably higher price than they at present pay for the stuff.

President.—You may be right, but on that point we have to get the opinion of engineers, because they are after all in the best position to tell us; but in some of the canal projects in the Northern India they are going to use lime and not cement, because they cannot afford the price.

Mr. Bilimoria.—At present?

President.—There was one particular case: it was something like this. I do not know the details. There was a long distributary and they wanted to line the distributary to prevent percolation. They decided to use lime and not cement because the cement was too costly.

Mr. Bilimoria.—We have the instance of the Gwalior Company where experiments have been made in connection with the Sarda Canal Works in the United Provinces where they have on our own suggestion used about 600 tons of cement in place of lime without any complaint, and I presume to their entire satisfaction. I have now received a further enquiry from another engineer from the same section of the work asking me to give him an idea of the lowest price at which we can supply 2 or 3 thousand tons of cement for next year for further use as a substitute for lime, which evidently implies that the present price is in no way an obstacle.

President.—Supposing the prices were to rise to the level of the imported cement.

Mr. Bilimoria.—How much is that, Sir?

President.—At present the Indian cement is being sold at Calcutta and Bombay at a little over Rs. 40 a ton. The imported cement is selling at from Rs. 55 to Rs. 60 a ton in Calcutta and other ports. If the price of Indian cement were to go up to about Rs. 60 a ton, I don't think you would get any increase in consumption. The consumption of cement might indeed go down.

Mr. Bilimoria.—The consumption at even a higher price, so far as my information goes, was not less than at the present low prices.

President.—You yourselves lay emphasis on the rapid increase in consumption.

Mr. Bilimoria.—Rapid increase in production. I only say that the consumption has increased proportionately year by year, or, if you take quinquennial periods, every five years, and at present there seems to be no reason to expect a set back.

President.—If there is a rapid increase in price there is a reason for a set back.

Mr. Ginwala.—You have given us the instance of the canal in the United Provinces. How far is it from your place?

Mr. Bilimoria.—I can't give you the exact distance, but the freight would be about Rs. 12 to 15 a ton.

Mr. Ginwala.—Is it possible that the canal is situated in a locality where lime is not easily available?

Mr. Bilimoria.—Lime is very freely available but we offered them cement and they tried it because a very small proportion of cement is required in comparison to lime.

Mr. Ginwala.—Can you tell us, taking 100 cft. as your quantity, how much lime would be required and how much cement?

Mr. Bilimoria.—If you use cement in the proportion of 1 part cement and 11 parts sand, still your work would be in no way inferior: it would be superior.

Mr. Ginwala.—How much would the lime cost in your own place?

Mr. Bilimoria.—I can't say off-hand how much it would cost us to produce lime from limestone.

Mr. Ginwala.—We are trying to make a comparison of the relative merits of the two. Supposing you were using lime, making the lime out of your own limestone, how much would it cost? Have you got any figures?

Mr. Bilimoria.—We have got the cost of limestone delivered at our works. Supposing, the cost of converting a ton of limestone into lime is Rs. 2—of course I am speaking off-hand. Mr. Symons tells me that lime at Delhi costs Rs. 21 a brass, *i.e.*, about 100 cft.

President.—I think it will be important for the Board to try and obtain this information from Engineers who are using cement and are in the habit of using it from day to day.

Mr. Ginwala.—You have told us that the cost of lime at Delhi is Rs. 21 a brass. How much would the cement cost?

Mr. Bilimoria.—About Rs. 40 to 42 a ton. Let us take the cement also in cubical measure. A brass of cement would be about 4 tons and, taking the price at Rs. 40 at Delhi, it would be about Rs. 160 a brass as against Rs. 21 a brass for the lime.

Mr. Ginwala.—And you will use 11 parts of lime to one of cement?

Mr. Symons.—Yes, in the proportion of 1 to 11. We have made experiments and this proportion of 11 to 1 or 10 to 1 will give better breaking strength than the lime. At the present moment I think the engineers are not quite sure of the proportion of cement which they can use, and they are now making this experiment, and by that they will be able to judge whether they can use cement in place of lime. I may also mention that one or two engineers whom I met recently told me that, if we could assure them that cement in the proportion of 1 to 8 or 1 to 9 would give better tensile strength than lime then they could afford to use it.

Mr. Ginwala.—Does it cost more in labour?

Mr. Symons.—Most decidedly not; much less. They are able to take a bag of cement to one place and dump it down and mix, whereas in the case of lime they have got to burn it, then put it in the grinding mill and mix it.

Mr. Bilimoria.—May I mention in this connection a fact about the Sukkur Barrage Scheme? Our chief manager has gone there and visited the engineers and he himself has suggested that instead of using lime and making their own lime and requiring so much capital and labour, he could convince them that the use of cement instead of lime will be very much cheaper, and he has carried on certain experiments and at present . . . .

President.—It would be more important, I think, to get the opinion from the Government of Bombay than from your representatives, if they have come to any decision of that kind.

Generally, on this question of consumption what I am really suggesting to you is this, that this prospect of a considerable future increase in consumption is very largely a matter of prices, and any measures taken which would have the result of substantially raising the price will have an adverse effect on the consumption.

Mr. Bilimoria.—If you consider the consumption for the year 1921-22 it is not considerably less than the consumption for the last year when the prices were top prices namely Rs. 150 a ton.

President.—But there was a lot of arrears to make up as a result of the war. Works that were hanging over had to be completed.

Mr. Bilimoria.—Do you include Government works also in that?

President.—I should think so. The Inchcape Committee had not sat then! However, let us turn now to question 51. You have given Karachi, Bombay and Madras as your principal markets.

Mr. Bilimoria.—Yes.

President.—When you have put up your own factory at Shahabad, they will be able to put cement in the Madras market cheaper than you can, so that Madras will not be a market that you can hold. So far as Porbundar is concerned, the market is really Sind, Kathiawar, Gujerat and Central India, and perhaps as far south as Poona.

Mr. Bilimoria.—I admit it.

President.—I think it is of some importance. We had a discussion with the manager of the Central Provinces Portland Cement Company as to how far a factory in the Northern India has a chance of getting the southern markets. Once a factory is put up in Southern India between Bombay and Madras it will cut them clean out of the southern markets.

Mr. Bilimoria.—I agree with you.

President.—In answer to question 53 which is on the subject of export trade you say " Places like Singapore, Java, Sumatra, Seychelles, Aden, Persian Gulf and Mesopotamia would be the most natural outlets for the output of this Company, as the distance from the port where this factory is situated to the markets named, are shorter than from other competing countries, provided reasonable freights are granted by the shipping companies." At what sort of price can you export? Let us take one definite place. Do you happen to know the freight from Bombay to Singapore?

Mr. Bilimoria.—From Bombay to Singapore I think it is Rs. 20 per ton.

President.—And from some English port, let us say London to Singapore?

Mr. Bilimoria.—It will be about 17 to 20 shillings.

President.—What would you regard as a reasonable freight from Bombay to Singapore?

Mr. Bilimoria.—Let us take it from Porbunder to Singapore at, say, Rs. 15 a ton.

President.—On the basis of that what price would that mean to you?

Mr. Bilimoria.—About Rs. 40 per ton *ex* works.

President.—With the present freight you have got to sell at Rs. 35 a ton?

Mr. Bilimoria.—With the present rate of freight it comes to selling at Rs. 35 f.o.b. Bombay.

President.—And you will have to add a further charge of bringing same from Porbundar to Bombay; that will be another Rs. 10.

Mr. Bilimoria.—Yes.

President.—There again, Porbundar is not a very important port at present and I imagine that transhipment will be necessary at Bombay. You cannot rely on having steamers starting from Porbundar to all the places except very occasionally?

Mr. Bilimoria.—The B. I. boats regularly touch at Porbundar.

President.—Where are they going to?

Mr. Bilimoria.—They go to the Persian Gulf.

President.—Take the other places you have mentioned in the direction of Signapore—Java, Sumatra and so on. Do steamers going to those places even touch at Porbunder?

Mr. Bilimoria.—What I want to point out is this that they want us to bring our cargo to Bombay and then put on board the steamer.

President.—If that is what they insist on your doing, it is of no advantage to you even if they call at Porbundar?

Mr. Bilimoria.—They say they would take cargo direct from Porbundar if it was a very large quantity.

President.—That is precisely the point I am getting at, that it is not the same thing to have your works at a small port as to have it in a big port, and that is so anywhere in the world. You do not get the same advantage, and you cannot rely on shipping your stuff in the same convenient way.

Mr. Bilimoria.—Yes.

President.—How would you have to pack your cement?

Mr. Bilimoria.—In gunny bags, 20 bags to a ton.

President.—Is cement packed in bags readily accepted by the market in foreign countries?

Mr. Bilimoria.—We did ship cement some years ago to foreign places and even now we are shipping by country crafts into the Persian Gulf and there has been no trouble whatever as regards packing.

President.—I put it to you that it has been urged before the Tariff Board that there is a real difficulty and that, if you want to export cement, you will have to do it in barrels.

Mr. Bilimoria.—I can tell you that even those English companies who used to send out cement to India in barrels are now using bags also because it is easier to handle a 1 cwt. bag than a 3½ cwt. barrel.

President.—You say that the British Companies are now commencing to export in bags?

Mr. Bilimoria.—Yes. English cement in bags is actually coming to India: not only English but some German cement also came into India in bags.

President.—We will make enquiries about that. The information the Board received was the other way about, that unless the Indian companies could accommodate themselves in the matter of packing there was no chance at all of capturing the export market. If you were packing in barrels instead of in bags, what would be the difference in cost?

Mr. Bilimoria.—It all depends on whether we buy barrels in small lots, or whether we put up a barrel making plant which would mean of course capital expenditure on a large scale.

President.—Have you investigated that at all?

Mr. Bilimoria.—We have and found that it would not pay. Even recently we had some correspondence with some people in Lahore as regards packing in barrels, but we find that it would be an impracticable proposition. The consumer now prefers bag packing to barrel packing because if he returns the empty bags back he gets a rebate.

President.—What consumer are you speaking of?

Mr. Bilimoria.—Consumers in India, the public as well as Government bodies.

President.—But after all the consumer who governs the export market are the consumers elsewhere. Have you actually ascertained what the state of things is in any of these places—Java, Sumatra and so on; have you got anything practical as to the views of these consumers?

Mr. Bilimoria.—Four or five years ago we had shipped some cement to Singapore, Java, Seychelles and Aden, all in bags.

President.—That was at a time when they were only too glad to have cement in any form.

Mr. Bilimoria.—I am not in a position to say at present whether any difficulties would not be raised by the consumers in these places against packing in bags, though I believe that in view of the fact that even English manufacturers have shipped in bags no difficulty should arise.

President.—I quite understand what your view is.

Now, in answer to question 54 you refer to the contract with the Development Department of the Government of Bombay. You say "the benefit of this contract was extended to the P. W. D. and such semi-public bodies as wished to join in it with the result that our sales to such public bodies have been much smaller than they otherwise would have been." But then who extended the benefit of the contract?

Mr. Bilimoria.—The Development Department.

President.—How could they?

Mr. Bilimoria.—I believe they were entitled to do so.

President.—You apparently suggest that the extension of the contract was injurious to you?

Mr. Bilimoria.—Yes.

President.—How could that be done without your consent?

Mr. Bilimoria.—First of all the Development Department sent tenders to all the companies then existing for the supply of cement, about 25,000 tons or so, for a period of 10 years asking them to quote their price for such supply, and each of the firms to whom the tenders were forwarded quoted fixed prices. Then we were waiting to hear about the result of the tender, and one morning we just read in the newspapers that the Bombay Development Department had entered into agreement with four Cement Companies for the supply of cement on this basis, and that was the first intimation the Indian Cement Company got of this arrangement entered into behind their back, so to speak.

President.—It is the existence of the contract that is injurious to you, and of course the extension increases the injury?

Mr. Bilimoria.—That is what I mean.

President.—The moment they entered into a contract with four companies of which you are not one, of course one realises that that cuts a part of your market.

Mr. Bilimoria.—Yes.

President.—The way you put it made me think that what you wished to say was that it was only the extension of the contract that affected you.

Mr. Bilimoria.—No, Sir. The extension came later on. The existence of the contract itself was injurious to us.

Mr. Ginwala.—The benefit that you speak of, is it a real benefit?

Mr. Bilimoria.—It was supposed to be. The contract is on the basis that the companies are to be paid the price which is equivalent to the cost of manufacture for that year, *plus* 15 per cent. on that amount. So that however little cement they may produce or however much they may produce.........

President.—That is a benefit to the producer; you say 'benefit extended to the P. W. D.'

Mr. Bilimoria.—What I mean is this: from the Development Department's point of view it was a benefit to enter into such a contract. To-day it is not a benefit, but at that time it was considered a privilege for the public bodies to go in.

Mr. Ginwala.—What is the distance from your port to Karachi?

Mr. Bilimoria.—302 miles.

Mr. Ginwala.—What is the freight?

Mr. Bilimoria.—Rs. 6 per ton.

Mr. Ginwala.—That is by the British India Steam Navigation Company?

Mr. Bilimoria.—The Bombay Steam Navigation Company.

Mr. Ginwala.—Now, with regard to this packing of cement, the consumers consider that bags are not as waterproof as casks. Why do they prefer barrels?

Mr. Bilimoria.—They would prefer packing in bags as regards handling, but if there is any prejudice it is about keeping the cement stirred for a time in which case, when it is put in barrels, it can stand moist weather for a longer period than bags.

Mr. Ginwala.—In the case of transport are not bags more easily liable to be damaged than barrels?

Mr. Bilimoria.—Yes. But when it is sent by steamer there is not much chance of its being damaged as it is kept inside the hold.

Mr. Ginwala.—Are there no means of waterproofing the bags?

Mr. Bilimoria.—That would add materially to the cost.

Mr. Ginwala.—Have you made any experiments?

Mr. Bilimoria.—Yes. When customers specially require that cement should be packed in waterproofed bags we put them in double bags and charge them double the cost of packing.

Mr. Ginwala.—What would be the cost of tarring the bags?

Mr. Bilimoria.—All these bags are made in Calcutta mills. They are sent out to us in parcels of 500 bags. If you take out each bag and tar it, that means a lot of labour. In proportion to the cost of bags, the cost of this work would be considerable.

Mr. Ginwala.—With reference to your answer to question 54: these prices that you say that you have realised from Government do not seem to be very unfavourable prices.

Mr. Bilimoria.—I don't say at all that these prices were unfavourable.

Mr. Ginwala.—They are good prices.

Mr. Bilimoria.—Because those were times of good prices.

Mr. Ginwala.—In 1923, the average price was Rs. 50.

Mr. Bilimoria.—That is Rs. 50 *ex* works.

President.—Any Company is lucky that gets Rs. 50 *ex* works at present.

Mr. Bilimoria.—It is not very good for the Company.

President.—I don't say that it is a remunerative price.

Mr. Bilimoria.—It is better than to-day's price certainly.

Mr. Ginwala.—It is only those small quantities that you sold to public bodies?

Mr. Bilimoria.—Yes.

President.—Are these the prices for the quantities that you supplied to local bodies?

Mr. Bilimoria.—These are the average prices of these sales.

President.—In that case it does not answer the question. The question was "Please state the extent of their purchases and the prices paid during each of the last five years." I don't raise any objection. I only want to be quite sure.

Mr. Bilimoria.—If you want details, I have got a long list and I can let you have it.

President.—It is not necessary.

Mr. Ginwala.—The Government do not pay any more than the ordinary consumer?

Mr. Bilimoria.—Not more nor less.

President.—These are your average prices?

Mr. Bilimoria.—Yes.

Mr. Kale.—You refer to the State subsidies given by Japan?

Mr. Bilimoria.—Yes.

Mr. Kale.—Can you give us any information as regards the system that is followed in Japan?

Mr. Bilimoria.—I could not give you any detailed or accurate information. It is only the vague information I got from one of the departments of our office who have got business relations with Japan and who have got their offices in Japan.

Mr. Kale.—Now, we hear a lot on this subject and we are told that the Japanese Government grants subsidies not only to cement companies but also to the cotton manufacturers and so on. We have had a good deal of it in the press also. But I want to know whether you can give us any concrete information which would be reliable.

Mr. Bilimoria.—Not at the moment. But I can promise to obtain the information.

Mr. Kale.—That will be very useful to us. We should like to know what other Governments do. We should like to know what other Governments give in the way of subsidies in order to find out whether something of that character is not possible in this country.

Mr. Bilimoria.—Yes.*

Mr. Kale.—In your answer to question 54, you say that the company has been able to secure substantial orders from both the Bombay and the Madras Corporations. How did you manage to get the Madras contracts? The railway freight to Madras, I find, is something like Rs. 30.

Mr. Bilimoria.—These contracts we obtained some two or three years ago. We don't say that we have at present.

Mr. Kale.—But the prices you obtained were not very remunerative?

Mr. Bilimoria.—No, but still we wanted to sell to Government and public bodies. We prefer even a reduction in prices in those cases.

Mr. Ginwala.—What are your average prices this year?

Mr. Bilimoria.—Do you mean *ex* works?

Mr. Ginwala.—Yes.

Mr. Bilimoria.—Anything from Rs. 47½ to Rs. 37½. To-day the price is about Rs. 38 or so. It does vary a little according to the distance. For instance, in Kathiawar we can sell at a somewhat higher price, but the other companies cannot as they have got a longer lead.

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* Not received.

President.—That is natural enough. Each one of the cement factories, with the exception of those that are close together, has, so to speak, got its own little area where it is able to undersell others at possibly quite a reasonable price.

Mr. Bilimoria.—That is so.

VI. FOREIGN COMPETITION.

President.—You have given us in answer to question 57 the prices of imported cement for 1923-24 as Rs. 75 to Rs. 55. Would Rs. 55 be the price of British cement or continental cement?

Mr. Bilimoria.—To-day the Continental cement would sell at Rs. 50 or even a little lower. By Continental cement, I mean the German, Belgium and Japanese cement. English cement to-day is selling in the Bombay market at about Rs. 58 to 60 and I have just got a quotation from our London Office. The c.i.f. price comes to 11*s.* 5*d.* per barrel, which is about 68*s.* a ton.

President.—What would that be in rupees at the present rate of exchange?

Mr. Bilimoria.—Rs. 48.

President.—That is a great deal cheaper than any other British cement we have heard of.

Mr. Bilimoria.—That is the price for the well-known brands. We had a cablegram recently from London, wherein the following quotations were given per barrel:—

> Gilingham £0-8-6 f.o.b., London £0-11-5 c.i.f. Bombay, Tunnel same, local market price £0-8-6 *plus* Danish O. K. £0-11-0 c.i.f. Bombay.

Mr. Ginwala.—Are these prices that you have given all c.i.f.?

Mr. Bilimoria.—These are market prices. I have not distinguished between English and foreign cements. I have taken the average. If one is selling at Rs. 50 and the other at Rs. 48, and the other at Rs. 60, I have only taken the average, say Rs. 55.

President.—As regards the prices given in the second column: they are the prices that you have been realising at Bombay and not what you actually got at your works?

Mr. Bilimoria.—These are the Bombay prices, not the works prices.

President.—Have you any views to place before the Board as to whether the present prices of British and Continental cements are likely to be permanent? You have told us that you have some reason to think that they are not remunerative. When that happens, there are two possibilities. Either sooner or later the price may go up, or the cost may come down. In the former case the price is a temporary one. In the latter case, it is a permanent one. Do you think that it is likely that the price will stay down where it is at present, or do you anticipate in a year or two that there will be a rise?

Mr. Bilimoria.—I don't think that in a year or two there will be a material rise in the price. I expect a still further fall.

President.—Why do you think so?

Mr. Bilimoria.—Because my information is—though I am not quite certain of it—even in England and in the Continent, cement works are not able to run up to their full capacity and they want other markets than their own to dispose of their surplus output and they are forcing this surplus output on the foreign market, with the result that price has been gradually going down and it may still further go down.

President.—The Indian manufacturer is partly to blame in bringing the price down.

Mr. Ginwala.—What we want to know is this. Can he go on like this? You cannot expect the British manufacturer to go on always selling at a loss and bringing down prices.

President.—The British manufacturer is subject to intensive competition in England.

Mr. Bilimoria.—The same question will apply to the Indian companies. Can they go on reducing their prices every day?

President.—That is a very interesting question. But we are dealing with British or European Companies.

Mr. Bilimoria.—I think that they are in a very much stronger position and that they can easily stand such sort of competition for a number of years, at least for a very much longer period than the many weak concerns in India.

President.—For our present purpose, then the present level of prices must be treated as being permanent?

Mr. Bilimoria.—They want to maintain their market. I am giving a quotation from the speech of the Chairman of the Associated Portland Cement Manufacturers Association that in order to maintain the market they had to sell . . . .

President.—Every manufacturer in the world does that, in every business. Certainly it is generally more freely done now than ever before.

In reply to question 64, you have given us freights from Porbundar to various places and also the railway freight from the port of Bombay to those places. There is just this to be pointed out. If you are competing at Ahmedabad with the imported cement, you have got to add to the railway freight from the port of Bombay to Ahmedabad the sea freight from Europe.

Mr. Bilimoria.—Yes, but at the same time we have got to pay the railway freight from Porbundar to Ahmedabad. It will probably be more than the railway freight from Bombay to Ahmedabad for the imported cement.

President.—I understand that. What I am pointing out is just this. In another question, we ask you to compare the freight from Porbandar to Bombay with the sea freight the importer has to pay. If you take the case of the foreign manufacturer, the total freight he has to pay in order to get to Ahmedabad is Rs. 12-8-0 *plus* the railway freight.

Mr. Bilimoria.—Yes, that would be all right if Ahmedabad is a big market But Bombay itself is a big market.

President.—I know that.

Mr. Bilimoria.—The competition at the ports is keenest.

President.—I quite recognise that. That of course is precisely one of the difficulties of the situation.

I do not quite know whether you suggested in this that the freights given from the port of Bombay to these places are lower than the freight you pay.

Mr. Bilimoria.—Yes, our freight from Porbundar to Bombay is Rs. 6.

President.—That is different. I am still on question 64. Take Ahmedabad for instance. From Bombay to Ahmedabad it is Rs. 9-1-4. From Porbundar to Ahmedabad it is Rs. 11-8-0. The question I asked was whether your information was that the rate per mile from the port of Bombay to Ahmedabad was lower than the rate from Porbundar to Ahmedabad.

Mr. Bilimoria.—The rates must be smaller considering the distances.

President.—Have you worked it out?

Mr. Bilimoria.—From all ports to stations in the interior, the rates are lower than from other places to those places in the interior.

President.—That is true. But you also are at a port.

Mr. Bilimoria.—But, as you say, it is an unimportant port.

President.—There may be this. I do not know whether on your way to Ahmedabad you pass over more than one line.

Mr. Bilimoria.—Yes, that is so from Porbundar to Ahmedabad.

President.—That usually means higher freights. For instance the representative of the Central Provinces Portland Cement Company told us that they paid about Rs. 10 from Jubbulpore to Bombay—a distance of about 600 miles —but from their factory to Jubbulpore—a distance of only 67 miles—they paid over Rs. 4 a ton. They could not get a concession from the East Indian Railway, but they got a concession from the Great Indian Peninsula Railway. I do not know how the Kathiawar system is run now-a-days. Does each State run its own system?

Mr. Bilimoria.—Yes.

President.—Then, I have no doubt the rates will be high.

Mr. Bilimoria.—Each system in Kathiawar is run by its own State and there are so many railways. From Porbandar to Viramgaon, we have to cross at least 4 railways.

President.—The only point about question 64 is, if you attach any importance to the fact that from Bombay the importer gets lower rates, let us have the distances and the freights worked out per mile.

Mr. Bilimoria.—Yes.*

President.—In reply to question 68 you say that most of the works are disadvantageously situated in respect of the supply of coal. It is a disadvantage that has existed all along. That is where the British manufacturer has got an advantage.

Mr. Bilimoria.—We are at a port, and the freight of Bengal coal would not have cost us more than Rs. 10 from the colliery to Porbandar works in those days. That was the utmost. To-day it is Rs. 20 and then there is the price of coal.

President.—Everything is double now-a-days. But you must not underestimate the extent to which the cost to the foreign manufacturer has increased.

Mr. Bilimoria.—I have no grievance against the foreign manufacturer. I only want to point out the fact as it is.

Mr. Ginwala.—In answer to question 57, you have given us your quotations from the bazaar.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—Those prices must depend very largely on the quantity of cement available in the bazaar. These would not necessarily represent the import prices.

Mr. Bilimoria.—By bazaar I mean those offices that indent for these articles for merchants. There are indenting officers who indent for goods for dealers, retail or wholesale, through their English agencies, and what I mean by bazaar price is the price at which the indenting officer has got his goods in Bombay. That is not the selling price in the bazaar which is a bit higher.

Mr. Ginwala.—They are really c.i.f. prices then?

Mr. Bilimoria.—Not exactly c.i.f. prices, but all expenses paid inclusive of Customs duty, wharfage and so on.

Mr. Ginwala.—Don't you get your own quotations from your own London Office?

Mr. Bilimoria.—We always keep in touch with the bazaar prices in order to sell our own stuff. That is the sort of information we obtain.

Mr. Ginwala.—Where did you get these rates from? Your realised price, are very much smaller than the import price, especially for the year 1922-23.

Mr. Bilimoria.—In 1922-23, we realised Rs. 100 to Rs. 70 and the bazaar price was Rs. 150 to Rs. 75.

Mr. Ginwala.—Why so much difference?

Mr. Bilimoria.—To-day the difference is Rs. 8 to 10 a ton between the Indian and the English product. In those days, the price being twice or three times high, the difference was also high.

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* Statement IV.

Mr. Ginwala.—But then you have a bigger margin, have not you?

Mr. Bilimoria.—We had in 1921 which was our record year.

Mr. Ginwala.—Because of this margin you must have got better prices.

Mr. Bilimoria.—We did get better prices in 1921.

Mr. Ginwala.—In your answer to question 61, you talk of an Indian Mercantile Marine. Do you really think that an Indian Mercantile Marine would very much reduce your freights?

Mr. Bilimoria.—What we mean is that it should be the duty of the State, for the protection of industries like ours, to help us in developing our export trade in the initial stages.

Mr. Ginwala.—That question only incidentally arises. What you mean is that the State should subsidise the freights on certain commodities.

Mr. Bilimoria.—Or make arrangements with the Indian Mercantile Marine.

Mr. Ginwala.—Do you mean that the Indian Mercantile Marine should be State owned?

Mr. Bilimoria.—It won't be State owned, but State assisted.

Mr. Ginwala.—How would you suggest the subsidy to be paid? Would you pay the subsidy to the manufacturer or to the shipowner?

Mr. Bilimoria.—The subsidy may be paid to the shipowner on condition that he carries the commodities at reasonable rates of freight to enable the Indian companies to compete with the other manufacturers in the foreign market.

Mr. Ginwala.—What would you make the basis of your subsidy?

Mr. Bilimoria.—That would depend on the figures for the different ports.

Mr. Ginwala.—Supposing instead of selling in your nearest market which is Karachi, you are to send your stuff from Porbandar to Madras and what to compete against the Shahabad works, on what basis would you pay the subsidy?

Mr. Bilimoria.—That is out of the question.

Mr. Ginwala.—That is a very important question.

President.—May I intervene for a minute? You can hardly treat this question of subsidy to the Indian Mercantile Marine as more than a side issue of this enquiry, for this reason that only two companies would be benefited by this. It would not benefit the industry as a whole. The others are mainly dependent on railway freight.

Mr. Ginwala.—Can you suggest any basis on which a subsidy can be paid either for sea freight or railway freight? What basis would you suggest?

Mr. Bilimoria.—As regards the railway freight, I don't mean payment of subsidy to the railway companies or to the manufacturers. What I mean is the actual reduction in the present rates of freight which are pressing so heavily upon the indigenous companies. For instance, in bringing our cement from Gwalior to Bombay, we have to pay more freight than a foreign manufacturer has to pay for bringing his stuff from London to Bombay.

President.—You are not comparing two identical things. Sea freight is always cheaper than railway freight.

Mr. Ginwala.—Can you give us any evidence that the railway freight in this country is higher than the railway freight for the same distance in other countries which compete against you?

Mr. Bilimoria.—It is higher in this sense that this country is so vast that commodities produced in one place have to be transported over lonf distances. Owing to these long distances, freights press heavily and the industries producing these commodities cannot prosper.

President.—That does not answer Mr. Ginwala's question.

Mr. Bilimoria.—You want me to answer, taking 100 miles in India and 100 miles in another country, say England, that the rate of freight in India is higher than the rate of freight in other countries. I have no exact information on that point. But my point is this that, even though the rates of freight in other countries may be higher, this country is so large, and the distances to be travelled here are so long, if the industry is to develop properly and sufficiently, the rates for long distances must be reduced to reasonable limits.

President.—The distances are greater in America than they are in India, are they not?

Mr. Bilimoria.—You cannot compare America with this country in point of industrial development.

President.—Quite. At any rate it has the same handicap in this particular respect.

Mr. Bilimoria.—America may have had it, but it has been overcome.

President.—I am not suggesting that the conditions in Amercia are the same as the conditions in India, but as regards distances, the same difficulty arises there. You cannot set aside natural circumstances of that kind. If any one said that in Europe it was an advantage for the manufacture of iron and steel at Moscow with the abundant supply of coal at Lorraine, that would be a sort of parallel case.

Mr. Bilimoria.—I don't think that the two cases are parallel.

President.—You cannot get away from the fact that you are far away from the coalfields.

Mr. Bilimoria.—That is true. But our complaint against the heavy freights is that they have recently been increased by such heavy proportions.

President.—As a matter of fact I pointed out that it is only one-ninth of a pie per maund per mile. You cannot call that a high rate of freight.

Mr. Bilimoria.—It might not be high in certain cases.

President.—After all it comes to this: either the railway freights are to be fixed on a commercial basis or there must be some reduction on the lowest commercial rate. If it is below the lowest commercial rate the difference falls on Government and it is really of the nature of a subsidy. Subsidies may be justifiable in certain circumstances, but it always seems to me that it rather complicates the whole thing, if the subsidy gets mixed up with the commercial part of it.

Mr. Ginwala.—Of course we would like to get some idea of this, but you are unable to help us any more than by adopting the usual argument that the freights must be brought down.

Mr. Bilimoria.—You want me to suggest the ways and means.

Mr. Ginwala.—We want to know whether it would be in the interests of the country to encourage the industry by reducing the freight at the cost of the general taxpayer. That is what it really comes to—to get over the geographical advantages which you say the industry has got.

Mr. Bilimoria.—Geographical position exists from the very start—whether it is advantageous or disadvantageous—but the present position has been brought about by other forces.

Mr. Ginwala.—In the answer to Question 64 you have not been very happy in the selection of your stations. Surat and Ahmedabad are probably two reasonably good markets for you, but not the others.

Mr. Bilimoria.—They are not large markets at all.

Mr. Ginwala.—Judging by distances, Ajmer is not a good market for you, nor Poona.

Mr. Bilimoria.—Surat is not a good market for us.

Mr. Ginwala.—You must add Rs. 12-8 to Rs. 5-10. Then you get Rs. 13-4 against which the foreign manufacturer has got to pay Rs. 18.

Mr. Bilimoria.—I understand, then, that you are making a comparison on the basis of foreign import, and whether the cement comes from Hamburg or Porbandar it is to be treated the same way.

Mr. Ginwala.—Supposing you want to compete against the foreign manufacturer, what advantages have you got against him? If you went to Nagpur it would be a ridiculous market for you because people at Jubbulpore are nearer. If you select your proper market we want to see how you are situated as compared with the foreign manufacturer.

Mr. Bilimoria.—We will take these three markets, Ahmedabad, Poona and Surat.

Mr. Ginwala.—Poona is not a good market for you. The factory you are constructing at Shahabad will be nearer.

Mr. Bilimoria.—Then the question arises as to the narrowing of the markets and then it comes to the crucial point.

President.—The narrowing of the market is made by internal competition.

Mr. Ginwala.—Leave alone the ports. As regards ports you are not unfavourably situated. It is only Rs. 6 you pay as against Rs. 12-8-0 which the foreign manufacturer has to pay. You have got a lead of Rs. 5-8-0.

Mr. Bilimoria.—My point is this. Why should any foreign cement be allowed to enter the port of Bombay?

President.—You have raised that question in the last paragraph and it is a quite different question. We will come to that later on.

Mr. Ginwala.—Where your market is properly selected you get a lead of Rs. 5 or more as against the foreign manufacturer.

Mr. Bilimoria.—That is the position only as regards freight, but the foreign manufacturer may have a lead of a much higher amount as regards the cost of manufacture.

Mr. Ginwala.—I am talking of freight. You are not so unfavourably situated as you claim to be as regards your principal markets in the matter of freight.

Mr. Bilimoria.—We admit that we are not unfavourably situated as regards freight in the markets of Karachi and Bombay.

President.—In fact you ought to be able to hold your Bombay market against your own Indian competitors because you have got lower freights.

Mr. Bilimoria.—There are other things which enter into the question.

President.—Their cost of production is cheaper?

Mr. Bilimoria.—Because of the larger output.

President.—That is a natural advantage. That tends to show that your factory is too small.

Mr. Bilimoria.—Under present conditions it is too large.

President.—In that case you should withdraw your suggestion that the other companies are underselling you because they have got a larger output.

Mr. Ginwala.—In answer to question 66 you have not given us any information really speaking. You have not read our note.

Mr. Bilimoria.—It is not possible for us to compare our figures with their figures, but I can give you any information that it is possible for me to give, if you put the questions to me. As regards the comparing of the cost of plant and machinery erected in India with the corresponding cost in Western countries, figures are not available.

President.—If you have not got information I do not see how we are going to get it from you orally any more than in writing.

Mr. Bilimoria.—I meant on general points, for instance, if you question what would be the cost of a plant with a output of 30,000 tons as put up by us and as it would be in England or on the Continent, we can give you that.

Mr. Ginwala.—Supposing your plant were put up in the foreign country, what would be the cost compared to what it cost you here? That means that you have got to add to your cost erection charges, freight and duty and various other incidental charges which the foreign manufacturer has not got to bear. You could have given these figures.

Mr. Bilimoria.—We can give you even now. Take the cost of the plant and machinery as given in another answer—Rs. 18 lakhs. That plant and machinery has been ordered from Denmark or Germany. Then you have to add to it transport charges between Germany or Denmark and Bombay, Custom duties and transport charges from Bombay to Porbandar. You cannot include the erection charges because it would be very difficult to compare our erection charges and theirs.

Mr. Ginwala.—We wanted to know the money value of your disadvantages, but that you have not given us.

Mr. Bilimoria.—It was very difficult to answer in detail because we were pressed for time.

Mr. Ginwala.—You could have given the customs duties on imported materials you have got to pay; also figures for consumable stores and things like that. You can send us another answer in substitution of the present one, if possible.

Mr. Bilimoria.—Cost of plant and machinery erected in India with corresponding costs in England, etc. Without making enquiries at Home I do not see how it is possible to give information.

President.—We are only desirous to get more information, if it is possible.

Mr. Ginwala.—What you have got to do is to balance your advantage with your disadvantage and try to find out how you are situated as compared with the foreign manufacturer.

Mr. Bilimoria.—I could give you f.o.b. cost of the machinery and plant and what it cost us to lay down at our works, but as regards erection charges, that is a different matter.

President.—There would be other items. You would have to pay customs duty. You would have to pay some cost of erection. That no doubt is difficult for you to ascertain.

Mr. Kale.—You say that the ports are very large centres for the consumption of cement. I should like to know whether it is so because local consumption is very large, or is it partly owing to the fact that these ports are distributing centres?

Mr. Bilimoria.—It is principally for local consumption.

Mr. Kale.—You mean on account of the docks and things like that? You think only to a small extent they are distributing centres?

Mr. Bilimoria.—Because nobody except the Dwarka Company and ourselves would bring the cement to Bombay for distributing purposes.

Mr. Kale.—I am speaking of the foreign cement when it comes to Bombay or Calcutta.

Mr. Bilimoria.—Calcutta and Bombay are very large consumers by themselves.

Mr. Kale.—You said something about the location of cement works in India and added that it is not possible to locate your factories near the coalfields, and you have to scatter them in different parts of the country.

Mr. Bilimoria.—That would serve for distribution purposes much better but it has been possible for one company to establish their words in Bihar, near the coalfields.

Mr. Kale.—But many would not establish themselves in that way?

Mr. Bilimoria.—Otherwise there will be concentration of production. That is why the Indian Cement Company instead of extending their works at Porbandar put one in Gwalior and another in Shahabad.

Mr. Kale.—The disadvantage has been partly set off when you locate them in different places?

Mr. Bilimoria.—I should think so: for instance Shahabad may be more distant from the coalfields than centrally situated works, but it might have a market which is much nearer to it and which is more distant for other companies to supply.

Mr. Kale.—Have you any information about companies that manufacture cement in America which is a country of long distances? Have you any particulars as to the transport charges and so on, and do you know how they manage to get over the difficulty with which we are confronted in India?

Mr. Bilimoria.—My information is very meagre but it is this: that they carry on manufacture on a very, very large scale. In fact I have heard of factories producing 500 to 1,000 tons of cement per day and therefore automatically their cost of production is reduced to as low a figure as five dollars a ton—about Rs. 15.

Mr. Kale.—So that they can afford to pay heavy transport charges?

Mr. Bilimoria.—Yes. You mean for transporting within the country itself, but I expect in America there are a considerable number of cement works in different parts of the country for distributing in different centres.

President.—Apparently the price they are getting is not very cheap: otherwise they would have exported. Do they sell it cheap?

Mr. Bilimoria.—They produce it very cheap.

Mr. Kale.—Do you know what amount of protection there is in the United States?

Mr. Bilimoria.—I do not know, but I think the protection there rises up to anything like 50 per cent.

VII. EQUIPMENT.

Mr. Ginwala.—You say that you have reconstructed your plant?

Mr. Bilimoria.—At different stages. Practically it comes to reconstruction. There were so many difficulties, first of all with the vertical kiln which was finally scrapped; then our engines of German type were scrapped and then our boilers to which we have recently made addition. Our plant is absolutely different from what it was at the beginning.

Mr. Ginwala.—That was due to some defective lay-out?

Mr. Bilimoria.—Defect in the engines which were of a German type and the type of the kiln which we were advised to adopt.

Mr. Ginwala.—That you have written off?

Mr. Bilimoria.—The kiln patent and the engines have been written off.

Mr. Ginwala.—How many lakhs did it run to?

Mr. Bilimoria.—About Rs. 1,50,000.

Mr. Ginwala.—Do you consider that now your lay-out and equipment are as good as they ought to be?

Mr. Bilimoria.—Under the circumstances; I want to point out that we produce cement in Porbandar by what is known as the dry process whereas at Gwalior we do it by the wet process which is considered more up-to-date. We cannot adopt it at Porbandar on account of several difficulties and also on account of the initial expense involved.

Mr. Ginwala.—I am asking you this general question. I find that your cost is higher than it ought to be. I want to know whether it has got much to do with equipment.

Mr. Bilimoria.—It has everything to do with equipment.

Mr. Ginwala.—Is it defective?

Mr. Bilimoria.—Not now but because it has been gradually evolved and has now assumed this shape.

Mr. Ginwala.—Have you brought your equipment now to the proper standard?

Mr. Bilimoria.—We cannot compare the efficiency and economy of our equipment with that of Gwalior which is most modern and up-to-date. Our labour costs will always be higher at Porbandar than in Gwalior: our coal costs will be higher because of the greater distance, again we consume 60 per cent. coal against 50 per cent. at Gwalior.

Mr. Ginwala.—Suppose you had the Gwalior plant at Porbandar, what reduction would you expect in your cost of production?

Mr. Bilimoria.—The cost of production apart from the coal question?

Mr. Ginwala. The quantity of coal that you use must be taken into consideration.

Mr. Bilimoria.—Factory labour would be less by about 1·5, repairs would be less by about 1, supervision, general services, etc., would be less by about 2, that is all.

Mr. Ginwala.—So that you may make a reduction of about Rs. 4 a ton.

Mr. Bilimoria.—Yes, and coal is extra.

Mr. Ginwala.—As against that the plant costs much more.

Mr. Bilimoria.—Yes.

President.—You have given identical figures as to the present cost of erection at Gwalior and Porbandar.

Mr. Bilimoria.—No.

President.—You say in answer to Question 81 "we estimate Rs. 9¼ lakhs and 23¼ lakhs would be the present cost of building and machinery respectively." The question is "What do you estimate would be the present-day cost under the heads (*a*) buildings and (*b*) plant and machinery of erecting a factory having the same output as your present factory?" These are the present-day costs of the Gwalior factory rather than of Porbandar.

Mr. Bilimoria.—Porbandar plant was less expensive because it is an old plant and put up earlier.

Mr. Ginwala.—How much would it cost if it was erected on the same lines as the Gwalior factory?

Mr. Bilimoria.—It would cost about Rs. 12 lakhs more.

Mr. Ginwala.—You will have to earn on Rs. 12 lakhs more?

Mr. Bilimoria.—Almost the whole plant will have to be scrapped and a new plant put up.

Mr. Kale.—You have just told us that the wet process is more economical than the dry process.

Mr. Symons.—With the dry process so much more machinery is required because raw materials have to be treated in a different way. The limestone has to be dried and the clay has to be dried before you materials and before you can intimately mix them. After that they have to be calcined and after calcination they have to be ground. With the wet process plant the materials are taken as obtained and mixed at once.

Mr. Kale.—Is either of these two processes suitable for a particular type of material or either process is suitable for any material?

Mr. Bilimoria.—As a matter of fact the dry process is more or less dependent on the materials obtainable.

Mr. Kale.—Supposing you have got here the Porbandar stone, can you adopt the other process here and work with that material?

Mr. Bilimoria.—If we had the Porbandar stone at Gwalior?

Mr. Kale.—Supposing you are starting to-day at Porbandar the Gwalior process.

Mr. Bilimoria.—We could apply the wet process there.

Mr. Kale.—Either of these two processes can be adopted indifferently in the case of the raw materials.

Mr. Bilimoria.—Yes. At the time when the factory was put up it was considered that the dry process was the best to adopt. Subsequently we put up a rotary kiln which we obtained second hand from America. It was war time and that was the only one available and we had to continue the dry process. The adoption of the wet process to-day would involve very heavy expenditure and that would be a matter for consideration.

Mr. Kale.—In answer to question 77 you say "spare parts for grinding machinery such as lining plates for mills and jaw crushers are now obtainable in India." What do you mean by that?

Mr. Bilimoria.—Firms like Alcock Ashdown and Richardson and Cruddas make spare parts according to the patterns submitted.

Mr. Kale.—You have not got to import?

Mr. Bilimoria.—I mean parts for grinding machinery and small things.

Mr. Ginwala.—Are these of cast iron or cast steel?

Mr. Symons.—Cast steel. They are of special chilled steel. On the class of material used depends the wear and tear. Otherwise you would be continually relining your mills and that would mean extra cost.

VIII. Capital Account.

President.—Before we go on to the capital account I think it would be convenient to ask you about the last paragraph of your letter. You say "With reference to the information required by the Board in connection with Works Costs we have given all possible information bearing on the points and issues raised in the questionnaire and we leave it to the Board to publish such portions as they may consider necessary to enable the public to properly appreciate the case of the Cement Companies for protection." Well, if it is left entirely to the Board we should make public the whole thing; that is to say we regard it as desirable, as far as possible, that nothing should be kept back. At the same time we recognise, as we explained in the questionnaire, that there is a difficulty; also we are not in a position to assure you that if you publish, other companies will do the same.

Mr. Bilimoria.—Do you mean that the same rule would not apply?

President.—There is no question of a rule. It must finally depend on the witnesses themselves as to how much they agree to publish. Naturally, if you agree to publish your costs, we should do our best to persuade the other companies also to publish theirs but we cannot promise that we shall be successful.

Mr. Ginwala.—The point is this, you are asking for national assistance; the nation has got to vote, if there is protection by duties, for the necessary amount of taxation, and if it is to be by bounties the necessary money. The country is therefore entitled to know what the actual position is, and it is to your interest that the Assembly and the Government of India should have as full information as possible so that they can make up their minds. Also if we make any recommendations, these recommendations must be based on facts and figures which can be placed before Government in the first instance and afterwards before the Legislature. Now we have got no facts and figures which we can use to substantiate the recommendations that we may make, unless they can be published.

Mr. Bilimoria.—Would it not be possible to follow the same procedure as in the case of the Steel company?

Mr. Ginwala.—They allowed us to publish everything.

Mr. Bilimoria.—If the Tariff Board publishes the whole of the cost figures and everything relating thereto, we will not complain, but if they think that in the interests of the public only certain portions are necessary to be published, then I leave it to their discretion.

Mr. Ginwala.—It is much simpler for us to publish the whole thing.

Mr. Bilimoria.—Do I understand that all this discussion relates to the cost figures, not to the other portion?

President.—The other portions will be published in any case. First of all let us narrow the issue down. As regards overhead charges you have no objection, I take it, to that being published?

Mr. Bilimoria.—No.

President.—As regards depreciation, working capital, head office expenses and Agents' Commission?

Mr. Bilimoria.—No.

President.—That narrows it down to the works costs.

Mr. Bilimoria.—The works cost is a statement which is always prepared for the Auditor's examination, but it is the only statement which the Company considers as of the nature of a trade secret.

President.—After all, it is a necessary material for the recommendations of the Board, and it is desirable that, as far as possible, it should be published.

Mr. Bilimoria.—We have no objection and we shall not raise any objection.

President.—We are very much indebted to you.

Mr. Ginwala.—That is the proper spirit.

Mr. Bilimoria.—We have given actual facts, not suppressed or exaggerated anything.

President.—To turn now to the capital account, question 81 is the first one I want to ask you about. The statement you make this morning rather emphasizes the question I was going to ask which was this: the original cost of your buildings and machinery was Rs. 25,50,000?

Mr. Bilimoria.—Yes.

President.—You say that the present cost of the buildings and machinery with the same output would be Rs. 35 lakhs.

Mr. Bilimoria.—Yes, in that neighbourhood.

President.—I will explain to you the question I was asking which is this. In 1917 you spent Rs. 10,50,000 on the purchase of your plant and machinery and that was a period of high prices, therefore it seems to me open to question whether the present cost of the plant, machinery and buildings for the same output would be higher than the amount in your books.

Mr. Bilimoria.—No.

President.—I gathered from what you stated this morning that the reason why it was higher was that you calculated on a different kind of machinery.

Mr. Bilimoria.—You here ask the question 'for the same output'.

President.—Yes.

Mr. Bilimoria.—Our factory is capable of producing 40,000 tons with an additional expenditure of Rs. 60,000.

President.—We have been asking you what the cost would be on the basis of 30,000 tons.

Mr. Bilimoria.—I have given you figures on the basis of 40,000 tons. What was in my mind in answering this question was that, if we are to put up a factory capable of producing 40,000 tons of cement to-day, a new factory together with the buildings and machinery constituting that factory would cost Rs. 35,00,000, and this figure I have taken from the Shahabad works which are just now being erected.

President.—They are under the wet process?

Mr. Bilimoria.—They will be the exact duplicate of the Gwalior works.

President.—That is very important. Indeed it answers the question completely. It is the best evidence that you can possibly give.

Mr. Ginwala.—When did you start purchasing the Shahabad plant?

Mr. Bilimoria.—The cement machinery was contracted to be purchased in 1920. But I may explain that this was first of all meant for Porbandar but subsequently we decided not to instal the wet process there but erect another factory in a different place (at Shahabad) and that Porbandar works should invest money in the capital of the Shahabad company. You may say that the contract for the purchase of the cement machinery was made at a time when the prices of machinery were high, but against that we had remitted money to the suppliers amounting to £40,000 at a very favourable rate of exchange the benefit of which we gave to the Shahabad company, so that though apparently the machinery costs so much Shahabad gets it at a lower price actually.

President.—Do you think the high exchange would counterbalance any subsequent fall in price?

Mr. Bilimoria.—Yes. That relates only to the cement plant. As for the power plant which we subsequently purchased about 18 months later when machinery was falling in price, we paid a price which was about 40 per cent. lower than we had to pay for Gwalior.

Mr. Ginwala.—So that it is only 6 lakhs?

Mr. Bilimoria.—6 lakhs for the cement machinery only.

Mr. Ginwala.—And the power plant?

Mr. Bilimoria.—For that we had to pay about 35 to 40 per cent. lower prices, as stated above.

President.—That was ordered later?

Mr. Bilimoria.—Yes.

President.—Of course if there was a fall in the course of a year or two of 35 to 40 per cent., there is a good deal to be counterbalanced. I understand that you say that the power plant at the time you actually bought it cost you 35 to 40 per cent. less than what you paid for exactly similar plant for the Gwalior Company?

Mr. Bilimoria.—What we will spend for an exactly similar works as the Gwalior works will be 5 to 6 lakhs less.

President.—What I am driving at is, if by postponing the purchase you could have got the cement making plant also at a similar reduction, there is very considerable amount to be counterbalanced.

Mr. Bilimoria.—That question was fully considered by the Directors of the Shahabad Company and they fully considered whether it was best to take over the contract from the Porbandar Company with the advantage of the exchange, or not to do that and buy machinery direct by placing a separate order, and they found that the former was the better course.

Mr. Ginwala.—You have corrected the figures in the Gwalior case. You have raised Rs. 9,50,000 to Rs. 11,50,000 and Rs. 23,50,000 to 24 lakhs.

Mr. Bilimoria.—These are the correct figures and that alteration should also be embodied in the Indian Cement Company's statement.

President.—Then it is Rs. 35 lakhs altogether. On that basis it means a capitalization of close on Rs. 90 a ton of output, that is to say your block account for buildings and machinery works out to about Rs. 90 a ton?

Mr. Bilimoria.—Yes. That takes into account only machinery and buildings.

President.—I know that. But that is after all the great bulk of your company's capital.

Mr. Bilimoria.—Not the whole.

President.—I have given you an extra rupee a ton: it only works out to Rs. 89 and I have given you Rs. 90.

Mr. Bilimoria.—Flotation charges, preliminary expenses, interest on loans, brokerage, these we have got to take into account.

President.—I quite admit that. Taking it on that basis how would that compare with the capitalization of other cement companies in other countries?

Mr. Bilimoria.—The information that I have with regard to the Associated Portland Cement Manufacturers' Association—they are proprietors of various concerns combined together—I find in the last report that, after writing off depreciation, their capital cost per ton of output comes to something like Rs. 45.

President.—Of course you cannot compare the figures directly because there may be all sorts of qualifications and modifications. If one could make these allowances, one would get the measure of the disadvantage in which the producer in India is in respect of initial cost?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—That is to say, the capitalization is on the valuation of the present assets?

Mr. Bilimoria. Yes.

Mr. Ginwala.—You cannot make a direct comparison?

Mr. Bilimoria.—One of the cement experts connected with the A.P.C.M. Association last year told me that, even last year or two years ago, cement works could not be put up in England at a capital cost of less than £4 a ton.

Mr. Ginwala.—That would be about it.

Mr. Bilimoria.—I think all the newer companies just show that value approximately.

President.—Can you let us have a copy of your balance sheet? *

Mr. Bilimoria.—Yes, sir. I think we have already sent you copies of same.

President.—You have invested about 26 lakhs in the Gwalior works?

Mr. Bilimoria.—Yes.

President.—In answer to question 86 you have shown the old issue and new issue of ordinary share. I take it they are identical?

Mr. Bilimoria.—Yes. The new shares were entitled to dividend after a certain date, that is, about 2½ years after they were issued.

Mr. Ginwala.—But now they have equal rights to rank for dividend?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—Do you mean to say that this Indian Cement Company is a shareholder in the Gwalior Cement Company or is it only a Creditor?

Mr. Bilimoria.—The loan is a separate thing. It is a shareholder in the Gwalior Cement Company to the extent of Rs. 15 lakhs out of 25 lakhs and then for further finance it had lent about 13 lakhs at the time of the last balance sheet, and now the loan is reduced to Rs. 11½ lakhs.

President.—That corresponds to the premium on the shares you issued?

Mr. Bilimoria.—Yes.

President.—You have made a smaller investment in the Shahabad company?

Mr. Bilimoria.—Rs. 11,40,000.

President.—And the other is Rs. 15 lakhs?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—The point that puzzles me is that you have given dividend to the Indian Cement Company and therefore you must have included its 15 lakhs in that. You have given a dividend on the whole share capital, part of which is invested in two companies, one of which at that time was not earning any dividend, and yet you have given them dividend.

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* Not printed.

Mr. Bilimoria.—Not to them but to the shareholders of the Indian Cement Company out of the profits of the Porbandar works.

President.—Then there is another item. This loan to the Gwalior Cement Company is mainly financed by you yourselves borrowing?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—I would rather like to be quite clear about that. You have got Rs. 15 lakhs and Rs. 11,40,000?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—This money is entitled to a dividend first of all in the Indian Cement?

Mr. Bilimoria.—But this money is not separate money. This money that is invested in these two concerns is part of the money obtained from the issue of new shares by the Indian Cement Company.

Mr. Ginwala.—That capital will earn in the Gwalior and the Shahabad Company.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—In addition to that it will be entitled to a dividend in the Indian Cement Co.?

President.—But conversely the old capital in the Indian Cement Company will be entitled to its share in the profits of the Gwalior and Shahabad Companies.

Mr. Bilimoria.—Supposing these companies are in an earning condition. Whatever dividends are declared by these companies go first of all to the Indian Cement Company in proportion to its holdings. These go to add to the profits made by the Indian Cement Company, and then there is the total amount which is distributed by the Indian Cement Company. Such a position has never actually arisen.

Mr. Ginwala.—In trying to calculate what you ought to earn we must take the three companies together.

Mr. Bilimoria.—Yes.

President.—I think you have calculated the manufacturers' profit on the block account. Normally your share and debenture capital would approximately equal your block account.

Mr. Ginwala.—I would rather be inclined to take the whole thing together.

This sum of nearly Rs. 10,50,000 that your Company have spent between 1917 and 1923 renews practically the whole of your machinery, does it not?

Mr. Bilimoria.—Except just a small portion which we call clinker mill, which also we can adapt to increase the output.

Mr. Ginwala.—What was your block value in 1917?

Mr. Bilimoria.—It would be to-day's block value less the money spent subsequently.

President.—*Plus* certain engines which you have actually written off?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—In 1917 your output was the same as your present output?

Mr. Bilimoria.—Yes, but that is a compulsory reduction. Last year we could have produced 25,000 tons with the vertical kiln. We produced less because we could not sell all the output.

Mr. Ginwala.—With regard to the new shares: you raised them in 1922?

Mr. Bilimoria.—New shares were actually issued in October or November 1919.

Mr. Ginwala.—How many?

Mr. Bilimoria.—7,600 shares of Rs. 250 each at a premium of Rs. 150 each, that is to say, the capital of the Company was doubled.

Mr. Ginwala.—What was the face value of the Capital?

Mr. Bilimoria.—The capital before the issue of new shares was Rs. 19 lakhs. That was doubled to Rs. 38 lakhs *plus* a premium of Rs. 11,40,000.

Mr. Ginwala.—You have got that premium because of the high dividends?

Mr. Bilimoria.—Not because of the high dividends, but because of the excited state of the share market at the time.

President.—Everybody was rather inclined to plunge at that time.

Mr. Bilimoria.—Even the wisest of men.

Mr. Ginwala.—When did they begin to rank for dividend?

Mr. Bilimoria.—From the 1st of July 1922.

Mr. Ginwala.—Really speaking, the value of the premium was much greater, for that reason.

Mr. Bilimoria.—Yes.

President.—In the table you have given in answer to Question 86, you have shown certain sums as ranking for dividend for 1919, 1920, and 1921, but as the new capital did not rank for dividend until the 1st of July 1922, surely the capital for dividend must remain at Rs. 19 lakhs up to that period?

Mr. Bilimoria.—Yes, up to the 30th June 1922?

President.—In your answer you have shown different amounts.

Mr. Bilimoria.—I noticed that later.

President.—We tried to frame this question so as to avoid confusion. We have not quite succeeded in our effort. It should be Rs. 19 lakhs for each of these years.

Mr. Bilimoria.—Those figures in the second column in 86 (*a*) represent the paid-up capital of old as well as new shares.

President.—We asked the amount of the paid-up share capital *ranking for dividend*, especially to guard against that.

Mr. Bilimoria.—I only noticed the mistake while I was travelling in the train to Simla. I beg to be excused for it.

President.—Has that affected the percentage on the next page?

Mr. Bilimoria.—Not at all. The percentage is all right. Only one dividend is paid on new shares after the participation.

President.—So long as it has not got into the percentage figures, I think that it is all right.

Mr. Ginwala.—On page 20, in your answer to question 90, you say "If oil fuel becomes available, etc., etc." When do you expect that?

Mr. Bilimoria.—During the time of coal scarcity, particularly during the time of scarcity of wagons and high prices of coal, we were seriously thinking of using oil fuel.

Mr. Ginwala.—That was for power?

Mr. Bilimoria.—For both purposes. Oil can be used in the kiln as well.

President.—Can you tell me when that was?

Mr. Bilimoria.—About 1918-19.

President.—At about the same time when the railways were thinking of using oil fuel for engines.

Mr. Bilimoria.—We found that the cost of oil delivered at the works would be about the same, but work with oil fuel is so much cleaner and better in every way. It required a capital expenditure of about three lakhs for the erection of storage tanks, etc., and perhaps we might sometimes be landed in difficulties on account of non-shipment and so we had to postpone the measure.

President.—One understands that.

Mr. Bilimoria.—Porbandar is an outlying port at which steamers from Persia with oil can touch.

Mr. Ginwala.—When you earned good dividends you did not carry anything to the reserve fund?

Mr. Bilimoria.—We have never earned good dividends.

Mr. Ginwala.—You have.

Mr. Bilimoria.—Only one year we earned 14 per cent. dividend.

Mr. Ginwala.—You earned 15 per cent. in 1921.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—But you did not carry more than a lakh of rupees to the reserve.

Mr. Bilimoria.—We never had the chance to do that.

President.—I admit that you have not had as much as some other companies.

Mr. Ginwala.—Don't you attach some importance to laying something by for the future?

Mr. Bilimoria.—If you take the 15 per cent. you will find that there is hardly any scope for taking anything out of that. 15 per cent. on Rs. 19 lakhs would be Rs. 2,85,000.

President.—By cutting your dividend, you could have saved some three or four lakhs.

Mr. Bilimoria.—Not three or four lakhs. The 15 per cent. is only for one year.

President.—You were able to declare dividends for three years?

Mr. Bilimoria.—I can tell you this. 5·8 is the average, and multiplied by 19, it comes to about Rs. 11 lakhs.

Mr. Ginwala.—That is including the new shares?

Mr. Bilimoria.—There was only one dividend on new shares, that was about Rs. 40,000.

Mr. Ginwala.—For how many years are you calculating?

Mr. Bilimoria.—The average rate for the whole period was 5·8 per cent. So, 19 lakhs × 5·8 would be about a lakh or a little over, then multiply it by 10 years.

Mr. Ginwala.—You took Rs. 11 lakhs as the premium and you have built up your reserve in that way.

Mr. Bilimoria.—It was intended to be built up as a reserve and invested as a very good investment in the Shahabad Cement Company.

Mr. Kale.—What is the idea underlying the Indian Cement Company going in for investments in these two other companies?

Mr. Bilimoria.—The original idea was to extend the capacity of the works at Porbandar itself, to bring it up to the latest model by putting in the wet process and so on. We wanted to double its capacity which was then about 20,000 tons. It was intended to raise it to 40,000 with the wet process. We thought that we could do that with about Rs. 15 lakhs and subsequently we found that the prices of machinery were so very high that the extension could not be carried out at the above figure. We also considered the question whether it would not be better to spend that big amount at another place in erecting a factory, so that our centres of distribution might be increased. That was why we decided to put up a branch works ~~of the~~ Porbandar Company in Gwalior, and the money that was intended to be spent at Porbandar was invested in the share capital of the Gwalior Company which would not have been registered as a separate company but for certain objections raised by the Gwalior State. Otherwise, it would have been simply an extension of the Porbandar Works, and would have been owned by the Porbandar Works.

Mr. Kale.—The Gwalior and Shahabad Works may be taken as offshoots, and also as supplementing your supplies in the markets in different parts of the country?

Mr. Bilimoria.—Yes.

Mr. Kale.—That is to say, you wanted to put your eggs in different baskets so that if there was some loss at one place, it might be compensated by some slight gain at another place?

Mr. Bilimoria.—Suppose we had doubled the capacity of the Porbandar Works, then the position would have been worse to-day.

Mr. Kale.—It is from the point of view which I have suggested that you have done it?

Mr. Bilimoria.—Yes.

President.—In Form No. II given in answer to Question 91, you have an item "Saving by the use of gypsum." What exactly does that mean?

Mr. Bilimoria.—Gypsum costs Rs. 20 a ton delivered at the works. If you add 5 tons of gypsum to 100 tons of cement, it means that you get 105 tons of cement. Five tons of gypsum cost only Rs. 100 at Rs. 20 a ton. Now its value in the changed form is about Rs. 40 a ton.

Mr. Ginwala.—Is it purely a mechanical mixture?

Mr. Bilimoria.—It is very fine mixture. The mixture is made by machinery.

Mr. Ginwala.—There are no chemical changes?

Mr. Bilimoria.—No.

Mr. Ginwala.—Your 100 tons of cement with the addition of 5 tons of gypsum would come to 105 tons of cement?

Mr. Bilimoria.—Yes. Five tons of cement would cost Rs. 200, whereas five tons of gypsum would cost only Rs. 100. That is the saving by gypsum. Another way of doing it is to show it in the cost of production as raw material.

President.—Is it not included in the figures under raw materials?

Mr. Bilimoria.—Yes, it is included in Form I.

President.—Then in your answer to question 93, you have given us an estimate showing to what extent you think you would be able to bring down the works cost, given favourable conditions.

Mr. Bilimoria.—Given full output and present-day conditions.

President.—The most important thing is that you can bring down the cost of power and fuel from Rs. 20-8-0 to Rs. 15·75 a ton. How is that to be accomplished?

Mr. Bilimoria.—That has already been accomplished.

President.—Is your coal running to waste on a smaller output?

Mr. Bilimoria.—The former coal was very much dearer.

President.—What saving has occurred since 1919?

Mr. Bilimoria.—As I pointed out in the previous paragraph, we have recently been using a mixture of Bengal Coal and the Central Provinces Pench Valley coal.

President.—You have told us about that. You did not say that that was recent innovation, did you?

Mr. Bilimoria.—Yes, that is the explanation.

President.—Do you mean to say that until 1923 you were using nothing but Bengal coal?

Mr. Bilimoria.—I said that we were using Bengal coal for boilers. Although apparently cheap, on the whole it was dearer because boilers would have to be cleaned oftener and the quantity used was considerably more, but since then it appears the quality of that coal has improved, as they have gone deeper. Our experiments both at Porbandar and Gwalior have now led us to the decision of using half and half in both boilers and kilns.

President.—Then you also show reduction in the cost of packing. How is that to come about?

Mr. Bilimoria.—In the first place we had been using very fine twill bags costing about Rs. 6 to 7 per hundred more than the bags used by other Companies. We got samples of these coarser bags and made experiments by packing cement in them and transporting. Our previous bags were better in appearance. That was one factor, and another factor was that we could now make a better contract for jute bags than we had entered into previously. The price of the bags to-day is about Rs. 33 per hundred.

President.—In your answer to question 93, you are pretty confident that you can get down to these figures, provided you get your full output.

Mr. Bilimoria.—Not only that. We have worked for one full month, that is the month of May, and we have got the actual costs for that month and they are not above these figures.

Mr. Ginwala.—Can you let us have those figures?

Mr. Bilimoria.—Yes. The figure for the month of May * comes to Rs. 36·8 but it includes overhead charges which we always take for our own purposes. Now deducting overhead charges, it comes to Rs. 33·3. It is better than these.

Mr. Ginwala.—There is a confusion of items. Do your overhead charges include depreciation?

Mr. Bilimoria.—No.

President.—What we call overhead charges are only (*a*) depreciation, (*b*) interest on working capital, and (*c*) head office expenses and agent's commission. We have to stick to some one system; otherwise we cannot compare the figures of the different Companies.

Mr. Bilimoria.—Do you mean that depreciation should be included in the overhead charges?

Mr. Ginwala.—Yes. We call overhead charges all charges above the works cost except the manufacturers' profit. Give us the works cost.

Mr. Bilimoria.—That is Rs. 33·3 as against this Rs. 36·5—that is for one month's full running.

Mr. Ginwala.—Compared to the Gwalior costs and the Central Provinces Portland Cement Company's costs which they have allowed us to publish, your costs are very high.

Mr. Bilimoria.—Could you give me an indication of the difference?

Mr. Ginwala.—They are well off in the matter of coal. Their cost under " power and fuel " comes only to Rs. 10.

Mr. Bilimoria.—Rs. 10 per ton of cement? In Gwalior, we are very much less than that.

Mr. Ginwala.—Even compared to Gwalior, their costs are much lower.

Mr. Bilimoria.—Because their output is 2½ times that of Gwalior and over three times that of Porbandar. They are producing 100,000 tons per annum.

President.—They actually produced only 25,000 tons, which was 8 months' production.

Mr. Bilimoria.—It is over 3,000 tons a month. Their cost is on the basis of 3,000 tons. That probably explains the reasons why our costs should be higher.

Mr. Ginwala.—In making our calculations, we need not take the most efficient plant, but we have to take an average, reasonably equipped and operated plant.

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* See also Statement II.

President.—If we compare your future estimate, about which we are asking you just now, with the costs of the Central Provinces Company, and if we make allowances for the increased cost of fuel that you have to pay which would be nearly six rupees a ton—and then there is one other item, *viz.*, that they have not incurred any expenditure on repairs to machinery—if you add all this to your estimates, it comes to Rs. 38½, so that there is not much difference in the total.

Mr. Ginwala.—I was comparing with 1923 costs.

Mr. Bilimoria.—I don't think that the Central Provinces Portland Cement Company produced any large quantity in 1923.

Mr. Ginwala.—They started on the first of November 1923. What is your average cost for the last six months?

Mr. Bilimoria.—It will be very heavy because our factory had to be closed for three months for want of space.

Mr. Ginwala.—You had so much stock of cement?

Mr. Bilimoria.—The position to-day is this. We worked from 1st May as I mentioned, and we have closed down on the 26th June after one month and 26 days' work because there is no space and the sales particularly during the monsoon are very slack and also shipments are not practicable. As soon as the cement warehouse, which has a capacity of 3,000 tons, gets empty, we will again manufacture. Now we can only manufacture by fits and starts. The cost of manufacture for the period of such fits and starts would not be at all a correct guide, but we have got these costs for the months that we have been working.

Mr. Ginwala.—With regard to your future cost, is this the utmost to which you can reduce it?

Mr. Bilimoria.—Yes, so long as the costs of coal and bags remain as at present. You cannot reduce the consumption of coal. As regards general services, supervision and local office charges, as a matter of fact we have dismissed a portion of our staff because we cannot carry on continuously and we did not engage any more staff during the two months that we ran in May and June. We think that no further reduction is possible there.

Mr. Ginwala.—I suppose that there is no means of transporting cement except in bags or barrels. You cannot send it in bulk without packing, like salt?

Mr. Bilimoria.—That point was considered some time ago by a company or a railway who wanted very large quantities of cement, but they found that transportation in bulk by steamer was impossible, and even if you sent it by railway wagons it was liable to be exposed to many risks, and perhaps might result in their having to pay a higher price than they would have to pay with the packing.

Mr. Ginwala.—Is that due to weather conditions?

Mr. Bilimoria.—The transhipment is a big difficulty.

Mr. Ginwala.—Supposing you had no transhipment?

Mr. Bilimoria.—If we want to go beyond Kathiawar, there is compulsory transhipment.

Mr. Ginwala.—Take the broad gauge or the metre gauge where you have no transhipment.

Mr. Symons.—I should say that it is practically impossible. In the first place you should have special tank wagons made. Cement is like water. If there are any holes, it would simply flow away like water. Apart from that, if there was the slightest question of dampness, the cement would be spoilt and if you had heavy winds, it would simply sweep the thing away. When you reach the journey's end it would have to be transported. Then it could not be done in a loose form. Bags would have to be added at the other end. Otherwise, the wastage would be considerable.

Mr. Ginwala.—I have seen salt, for instance, taken in bulk.

Mr. Symons.—I have never heard of cement being taken in that way.

President.—Coming to the overhead, on this question of depreciation you have given the opinion that, owing to heavy wear and tear and to the fact that cement factories have to run continually for all the 24 hours, you consider that the rate of depreciation should not be less than 10 per cent. for machinery. 7½ per cent. is in itself a concession rate, is it not?

Mr. Bilimoria.—It was formerly 5 per cent. only, and we had to appeal to the Government and the Income-tax authorities to raise the figure to 10 per cent., and they have just compromised by raising it to 7½ per cent.

President.—Do you consider, for instance, that the wear and tear on cement-making machines is greater than in the case of the steel-making machinery. I mention steel-making machinery because it is the thing we happen to know most about.

Mr. Symons.—I have no experience of steel-making machinery, but I think they have a few machines of a very heavy type, whereas in the cement works you have got a large number of machines more or less small. Therefore I think there would be greater wear and tear on these than on the steel machines.

President.—However it is not a matter of importance. In answer to question 108 you have told us how the agent's commission is calculated. You do not deduct, I understand, interest on debentures or any reserve allotment before striking the profits on which the agent's commission is calculated.

Mr. Bilimoria.—That is generally the practice in Bombay with all companies. We are following the ordinary practice.

President.—The question always arises how far it is reasonable for Government or the Legislature to take that into account when fixing the rate of protection.

Mr. Ginwala.—You take 10 per cent. of what would be the depreciation fund? Suppose the depreciation fund is Rs. 1,50,000. Can you show a profit without deducting the depreciation of Rs. 1,50,000 in which, according to this, the agents are entitled to a share?

President.—Is that a fair way of doing it?

Mr. Bilimoria.—That is considered fair by all firms in Bombay.

X. Manufacture's Profit.

President.—You say in answer to question 112 that a return of less than 12 per cent. on ordinary shares would not attract investors.

Mr. Bilimoria.—It is so.

President.—But there is a good deal of difference between the prospect of a dividend and a dividend actually paid.

Mr. Bilimoria.—An old company, for instance, is paying to-day a dividend of 12 per cent. I think the market price would be based on something like 9 per cent. That is in the case of mill shares, but in the case of a new concern which you wish to start and where you want to invite capital, it should be attractive.

President.—It is rather on the basis of the old concern that we want to go, and on that basis the companies would presumably receive the assistance they require to enable them to pay that dividend.

Mr. Ginwala.—See the answer to question 108. I do not see why the agent's commission is calculated like that: you have a certain minimum Rs. 54,000 here.

Mr. Bilimoria.—That is not commission.

Mr. Ginwala.—That is office expenses: you have got a lump sum?

Mr. Bilimoria.—That is not got by the agents. The agent's monthly remuneration or what is known as office allowance in the case of the Indian

Cement Co. is only Rs. 600 a month. That is what is known as agent's remuneration for conducting the business of the Company and there are the office expenses, maintenance of staff, etc.

Mr. Ginwala.—Do you get a lump sum for that?

Mr. Bilimoria.—No. These are actuals. They are spent on behalf of the Company.

Mr. Ginwala.—Is there any minimum guarantee?

Mr. Bilimoria.—No.

Mr. Ginwala.—So that at present there is no question of getting anything?

Mr. Bilimoria.—No.

Mr. Ginwala.—Supposing we were recommending protection and we wanted to find out what the Company ought to get by way of a selling price, we cannot include 10 per cent. depreciation, and we cannot include 10 per cent. on debenture interest as part of the agent's commission.

Mr. Bilimoria.—I quite understand your objection to that.

Mr. Ginwala.—There are these various other things that you mention here—sinking fund, etc.

Mr. Bilimoria.—Sinking fund is not anything distinct from depreciation in this case.

Mr. Ginwala.—So that you agree that, ordinarily speaking, these should not be taken into account when calculating the agent's commission.

Mr. Bilimoria.—As stated by me this is the general practice in Bombay. But I believe, if a suggestion is put forward before the agents in the light of the present position of the industry, they would be sure to give reasonable consideration to it.

Mr. Ginwala.—In calculating your manufacturer's profit you have taken all along 12 per cent.?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—In the case of a protected industry 10 per cent. would be considered a reasonable return, would it not?

Mr. Bilimoria.—Yes, because protection itself implies that the industry is not in a normal state, and I think shareholders would be satisfied with that percentage.

XI. Claim for Protection.

President.—On this question of natural advantages I really want to draw your attention to the fact that the industry in India has certain natural advantages—we admit—in the matter of raw materials and so on, but also got certain natural disadvantages, the distance of the coal from the raw materials and the distances of the factories from the most important markets. The second might change in course of time, but the first, though it might be minimized, cannot be removed.

Mr. Bilimoria.—Are you referring to my own company?

President.—It applies to all, but to a greater extent to you as the distance of the coalfields from your works is very great.

Mr. Bilimoria.—I think this disadvantage might be considered as balanced by the facility to make shipment by sea to certain places, and that was the consideration which led us to establish the factory at Porbandar.

President.—Your expectations have not been altogether fulfilled?

Mr. Bilimoria.—Unfortunately not.

President.—Of course it is an old criticism against India that the business is too much concentrated at the principal ports and that it is not sufficiently spread over the other areas. Here we come to the crux of the whole thing. At page 26 you say "We can also confidently say that if this industry is not allowed to succumb to present abnormal world conditions but is enabled to survive, it will certainly be in a position ten or fifteen years hence to face world competition." It is not clear to me on the cost of production figures you have submitted that this is really the case. Taking your future estimate of your works costs, which amount to Rs. 37·5, I worked out the incidence of the overhead charges on the full outturn on certain assumptions, and they won't exactly agree with the figures that you have given us. I think the total of the overhead charges comes to a little lower than yours. It works out to about Rs. 17½ a ton over the works cost. The assumption then is that if you should get Rs. 55 at the works with your works cost of Rs. 37·5, you are just about in a normal condition. You have got to pay freight to Bombay, another Rs. 6. That is, you can put your cement on the Bombay market at Rs. 61 a ton. Do you think that you will get this price in competition with imported cement?

Mr. Bilimoria.—That assumes that we will be able to produce and dispose of the whole output.

President.—I am not talking about the immediate question of protection. In 15 years' time, you say, you will be able to do without protection. It is not clear to me how you are going to do it. You see, if there were no protection at all at present, foreign cement would be coming in at from Rs. 45 to Rs. 50 a ton. So far as I can see on the lowest figures you have given us, nothing less than Rs. 60 will do for you in Bombay.

Mr. Bilimoria.—Your figures take manufacturer's profit also.

President.—This is the difficulty in my mind that I want to bring to your attention. On the basis of Rs. 37·5 estimate of works costs you want about Rs. 60 a ton in the Bombay market to give you a fair return on capital.

Mr. Bilimoria.—Yes.

President.—If there was no protection, cement would be coming in not higher than Rs. 50. On that basis you have got to take Rs. 10 off somehow, and that means you have got to bring your works costs to Rs. 27. If you are going to be able to dispense with protection, you will have to be able to sell at Bombay at Rs. 50 a ton.

Mr. Bilimoria.—You are only considering the Bombay market.

President.—Yes, because it is your most important market and must be in the nature of the case. I quite admit that lower prices in Bombay will be counterbalanced to some extent by the slightly higher prices in other markets.

Mr. Bilimoria.—May I know how you have worked out the figures?

President.—I have taken interest on working capital at Re. 1-8 a ton.

Depreciation	Rs. 5
Head office expenses and agent's commission .	Rs. 3
Manufacturer's profit	Rs. 8

These four items together come to Rs. 17-8. If you add this to Rs. 37-8, you get Rs. 55. If again you add Rs. 6 for freight to Bombay you get Rs. 61.

Mr. Ginwala.—You must add something more for landing charges, etc.,—it will come to Rs. 3 or 4.

President.—That makes it worse. The point I am repeating is this. Before you can dispense with protection you have got to bring down your works costs far below Rs. 37-8.

Mr. Bilimoria.—You have taken the agent's commission at Rs. 3: that means Rs. 90,000 and that assumes a profit of Rs. 9 lakhs.

President.—Taking agent's commission, head office expenses, etc., they come to Rs. 4½ lakhs roughly.

Mr. Bilimoria.—10 per cent. of that will come to Rs. 45,000; that will come to Rs. 1½ a ton.

President.—On the other hand, as Mr. Ginwala pointed out, I have not taken into account the landing charges on your cement to Bombay. Taking

Rs. 60 as a round figure, you have got to go down from Rs. 60 to Rs. 50 before you can dispense with protection.

Mr. Bilimoria.—You have taken manufacturer's profit at 10 per cent. It is not necessary that we should realise the price of Rs. 60 in Bombay in order to live, because the position to-day is so critical that the shareholders would rather prefer to see the Company's existence continued than to let it die.

President.—I am looking 15 years ahead. You will have to offer a reasonable prospect that, if eventually protection is dispensed with, you will be able to go on.

Mr. Ginwala.—The point is this. You have got your best markets at the ports. The largest quantity of cement is used in ports. There is a considerable amount of cement now used by the ports which is imported. One of the things that cement companies want is to capture that market. Now let us assume that you have captured that market if protected by a tariff wall. When you have done that the question arises whether you will be in a position to do without protection. There is no answer to this question in your statement. There are two or three possible answers. One is that the price of imported cement may go up, but you have yourself admitted that you think it will come down.

Mr. Bilimoria.—That is so long as the present depression continues: I do not mean that it would continue for 15 years. The price of imported cement would go up.

Mr. Ginwala.—That is one possible solution. We are looking it from a broad point of view, but, judging by present-day tendencies, there is not much likelihood of the foreign price going up. If it goes up, well and good. It is one possible solution. The other solution is that you may be able to realise a much higher price in the interior of the country: out there, you say, you have got a very small market.

President.—Also this particular factory is not well situated for the internal market.

Mr. Bilimoria.—No, except for Kathiawar, Gujarat and a part of Rajputana.

Mr. Ginwala.—The third thing is to cut down your cost, but you have given your future estimate which is also fairly high.

President.—I do not see where any real big saving is to come from in order to cut it down from Rs. 37·5 to Rs. 27·5.

Mr. Bilimoria.—What I understand from you is that, if protection is once given, it will be necessary to continue indefinitely.

President.—That is not what the Fiscal Commission has said at all.

Mr. Bilimoria.—That is your fear I understand and you assumed a period of say 10 to 15 years.

President.—I am only taking some future period.

Mr. Bilimoria.—That assumes that the consumption of the country at the end of the period will still be so low as not to overtake the production and that there is no chance also for the prices to go up to the proper level.

President.—The point is, what is the proper level of price?

Mr. Bilimoria.—The proper level is when the industry makes a reasonable profit.

President.—That is not in the least what the Fiscal Commission meant. ✓What they said in this connection was that you should be able to hold your own against any country in the world so that you cannot be undersold.

Mr. Bilimoria.—My argument is that in about 10 years' time consumption in the country will be so much more than it is at present.

President.—That won't help you because this estimate is based on your full outturn.

Mr. Bilimoria.—So much more than the present that the total production of the country will not be sufficient to meet the demand, and prices will then be regulated by a free market.

Mr. Ginwala.—The theory of protection assumes that domestic production ultimately equals domestic demand. Therefore there is no room for any artificial raising of prices owing to the demand being greater than the supply.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—In that case your argument does not hold at all.

Mr. Bilimoria.—To-day a portion of the quantity consumed by the country is supplied by foreign countries, that is about 20 per cent. of the total producing capacity of the country, with the result that the country is only able to put forth 40 per cent. of its total output and is not in a position to put forth 60 per cent.

President.—That is not relevant to the question.

Mr. Bilimoria.—My point is this: if the foreign competition is eliminated altogether the present indigenous companies will have a partially expanded market whereby they can increase their output from 40 per cent. to 60 per cent. and thereby there will be partial relief obtained.

Mr. Ginwala.—We are giving you an increase from 40 to 100 per cent. We are assuming that you work up to the full capacity and that the foreign manufacturer is out of the country.

Mr. Bilimoria.—I do not think you assume that.

Mr. Ginwala.—Behind the tariff wall the foreign manufacturer goes out. The question is, after the foreign manufacturer has gone out, is he to remain out for ever?

Mr. Bilimoria.—No.

President.—The theory of the Fiscal Commission was this: they laid down —and the condition has been accepted by the Legislative Assembly and the Government of India—that, before protection is granted, there should be a reasonable probability that eventually the industry concerned should be able to hold its own without protection. In the case of the iron and steel industry there was the enormous advantage which India possessed in its iron ore. What I am trying to get at is this: I do not see that there is any natural advantage sufficiently great for the cement manufacturer to make it reasonably certain that he will eventually be able to do without protection.

Mr. Bilimoria.—What I conclude from your remarks is that even with protection some of the companies must go out of existence.

President.—That was not in my mind for a moment at all. Let us take a hypothetical case. Let us say that at the end of ten years the demand of cement in India has grown to 600,000 tons and owing to the grant of protection this is entirely supplied by firms producing in India, all of them working to their full capacity with their costs as low as possible, and there is no overproduction. Then supposing the question was raised whether protective duties should be continued, I do not see, on the figures put before us by you, that there is any reasonable prospect of the protective duty being removed because, as soon as it was removed, the foreign manufacturer would again come in, because the natural advantages are as much with him as with you.

Mr. Bilimoria.—But it seems to me consumption will have increased. You are assuming that it would be equal to the production of the country and you are assuming a long period.

President.—Do you want prices fixed on the basis that you ought to produce a little less than the country can consume?

Mr. Bilimoria.—You are assuming a very long period and at the same time assuming that the demand will at the end of that period be equal to production.

President.—I must assume that.

Mr. Bilimoria.—The time must come when the consumption will exceed the production.

President.—Why must it come?

Mr. Bilimoria.—Why should it not come?

President.—If you are asking for it on the assumption that you have to put a prohibitive duty on imported cement and then the existing companies are to sit quietly and produce less than the country requires and make your own prices, you are saying the very thing which would put me dead against your case.

Mr. Bilimoria.—That is not my remotest intention. In the first place the duty would be put on by the Legislature and it will be in the hands of the Legislature to withdraw it. As soon as it is found that the manufacturers were taking undue advantage of the protection—as soon as it found that they were trying to raise their prices to the detriment of the general consumer—it would be absolutely in their own hands to repeal the duty.

President.—You have not satisfied us on the figures that you have given that at any time in the future the industry will be able to dispense with protection. I can only put it to you and it is for you to meet it if you can.

Mr. Bilimoria.—But, sir, my point is this that in the figures assumed by you of 60 rupees you are including manufacturer's profit.

President.—Clearly no industry can meet foreign competition unless under all normal conditions the manufacturers are making a reasonable profit. Periods may come when they have got to cut their prices but it must, on the whole, be making a reasonable profit in the circumstances.

Mr. Bilimoria.—But even if no profits be made, the Company can surely continue its existence so long as it just pays its way.

President.—But is that what the Fiscal Commission meant when they said that the Company must be able to hold its own against foreign competition?

I can only tell you that I am anxious to give you every opportunity of removing the doubts and hesitations in my mind. That is why I am putting this to you. If you can remove it so much the better, but on the figures of your company it is not evident where your saving can come from. Is the reduction in works cost sufficient at some future date to enable you to dispense with protection? I don't at present see how it is going to happen.

Mr. Bilimoria.—But my point is, as I have put it again and again, that the consumption in my opinion will increase very much in the next ten years.

President.—I quite appreciate your point; you are perfectly entitled to urge it. But what I meant to say is that it is rather more important to meet my point, if you can, because after all what you want is to influence us.

Mr. Bilimoria.—Certainly.

President.—When you say that consumption will increase, naturally it will overtake the demand.

Mr. Bilimoria.—It will exceed the demand.

President.—Immediately the prices will go up.

Mr. Bilimoria.—Yes.

President.—When prices go up the foreign manufacturers will be able to put their goods in this country in spite of the duty. How can that protection be withdrawn in that case?

Mr. Bilimoria.—I follow your chain of argument. You say that production will go up. But the demand will also go up. The demand will go up to such an extent that prices will go up, and the moment prices go up the foreign manufacturer will take advantage of this. Perhaps they will be able to land their goods and make profits in spite of protection: then how can protection be withdrawn, that is your point.

President.—If prices go up as a result of the increase in demand, the foreign manufacturers will be able to compete with you in spite of protection, and as a result protection will have to continue so that the Indian industry may survive. The moment you remove the protection the conditions will be worse than they are to-day.

Mr. Bilimoria.—May I know if this discussion applies only to the Indian Cement Company?

President.—I am arguing the case on the basis of your own cost, because, with the exception of one Company we have not yet got permission to publish the costs of other firms. I quite admit that what I have said might be subject to qualifications in the case of other companies. The costs of the Gwalior Company are a little less than those of the Porbandar Company, but I cannot argue the case in detail with you on these lines unless I take concrete figures. That is why I took the Porbandar Company. I quite admit that the Gwalior figures work out better. On the other hand, of course, there is much bigger addition to be made on account of freight to the principal markets in the case of the Gwalior Company. Other considerations also arise, there being other companies nearer Calcutta and Bombay, it might not be able to compete with them in Calcutta and Bombay and might have to rely entirely on up-country markets. As far as that is concerned, supposing the market was large enough, the Gwalior Cement Company could carry on with considerably less protection than the companies at the sea coasts.

Mr. Bilimoria.—I would beg to suggest that as the figure of Rs. 60 arrived at by you includes manufacturers' profit, I don't think that should be included in it because—

President.—Supposing protection were once put on and the result of the protective duty was to cut out the manufacturers' profit altogether, what do you think the attitude of the manufacturer would be when the Legislature came to consider the proposals?

Mr. Ginwala.—Let us just look at it this way. You are talking of the increased consumption and so on. Take your present production and your best works cost—Rs. 33 a ton. Your overhead charges come to Rs. 17 on the present production of 15,000 tons—depreciation Rs. 11-6, working capital Re. 1 and agents' commission Rs. 3. That makes it Rs. 17. The incidence of profit you have given as Rs. 20 per ton at 12 per cent. I am taking 5/6th of it, that makes it Rs. 17. 17 and 17 is 34; that includes overhead charges and profit on the present output. Then your works costs come to Rs. 33; that makes 67: that is to say, *ex* works you must get Rs. 67. Now, take the Bombay market. It costs you Rs. 6 by way of freight; that makes it Rs. 73. We won't add any other charges. Now let us take the c.i.f. price to Bombay. It is Rs. 50, is it not? Let us assume that price remains and we add Rs. 25 duty. It will just pay you if you get Rs. 75 at Bombay. Now, the question arises when you can give up this 25 rupees. We took Rs. 33 as your works cost; we took Rs. 34 as your present overhead charges and the profits. We will have to halve that, when you reach your full output. That gives you Rs. 17. Rs. 35 *plus* Rs. 17, gives you Rs. 52, add Rs. 6 sea freight to Bombay: that gives you Rs. 58. The c.i.f. price is Rs. 50; you still want Rs. 8. You would always want it.

Mr. Bilimoria.—That is on the basis of the present output.

Mr. Ginwala.—No, that is on the full output. The question is whether, once we have given protection, the industry would be established in the country. It is not a question of your shareholders getting a dividend—being satisfied with a little dividend or getting no dividend. The question is whether once protection is given, the industry will be able to do without it at a later date. What I am trying to point out is that that will not be the result of protection on the figures you have given. We have taken Rs. 33 as the works cost, depreciation Rs. 11-6. Working capital Re. 1 per ton. . . . .

Mr. Bilimoria.—We have not got to pay interest on working capital.

President.—The point is this. In working out what the cost of production is I should do it by taking the interest at some rate, 8 or 9 or 10 per cent. or whatever the rate was, on the block account, then calculate what you require as working capital and give you a suitable rate of interest on that.

Mr. Ginwala.—I would rather take it the other way, the total share capital.

President.—We have got to provide for firms who come before us who have borrowed their capital.

Mr. Ginwala.—Your working capital is Rs. 4,00,000 on the present output of 15,000 tons; that will give you Rs. 2 per ton. Agents' commission and other charges Rs. 3 per ton. That gives you Rs. 16. Then, your profit is, say, Rs. 16. You have given Rs. 20 a ton; 5/6th of that will give Rs. 16. 16+16=32+35=67, *plus* Rs. 6 for freight; that comes to Rs. 73. C.i.f. price is Rs. 50 just now. With the 25 rupees duty you want, it comes to Rs. 75; so you are all right there, you can compete. Now, we have got to consider when you can do with Rs. 50 instead of Rs. 75.

Mr. Bilimoria.—These figures will be vitiated by a change when you assume that when a duty is levied of a prohibitive nature, so much more business goes to the indigenous companies.

Mr. Ginwala.—I am now talking of the present position. You want Rs. 25 duty even at the present rate of output. We have got to consider the next stage, when you will be able to do without this additional duty of Rs. 25. Let us take Rs. 35 as your works cost. Then when you get the full output we halve the overhead charges; that comes to Rs. 16. That makes Rs. 51 *plus* Rs. 6 freight. We assume the freight remains the same. C.i.f. price is Rs. 50; you still require Rs. 7. So that on these figures we cannot contemplate any time in the future when you will be able to do without this Rs. 7 protection. That offends against one of the conditions laid down by the Fiscal Commission.

Mr. Bilimoria.—For the purposes of this calculation do you take the present 15 per cent. duty and the additional duty?

President.—Rs. 25 includes the present duty of Rs. 9 *plus* Rs. 16.

Mr. Ginwala.—Rs. 9 is not a protective duty at all, it is a revenue duty. Government may take it away at any time. Therefore, we must assume that you must get Rs. 7 a ton protective duty always if you were to make a reasonable profit and the industry was to live. That, I say, offends against condition 3 to which reference has been made here.

Mr Bilimoria.—My view is that, even without protection the Company prospered during the last few years. Conditions so altered because of the European situation and of the over-development of the industry in India.

President.—If you will think it over when you got the record of the evidence and have got a better grip of the subject and like to tell us more about it, I hope you will do so.

Mr. Ginwala.—What is the demand in the interior away from the ports for your cement?

Mr. Bilimoria.—If the present output is taken as 15,000 tons then the Bombay market will take about 8,000 to 9,000 and the rest will go elsewhere—Karachi and the interior.

President.—Can you give the Karachi figure?

Mr. Bilimoria.—It would not be more than 2,000 tons.

Mr. Ginwala.—In the interior you get a much better lead?

Mr. Bilimoria.—Of course, you take all these figures for comparing with the imported price in Bombay you assume that our works price must be these figures, but for the interior we can obtain a better price.

President.—If all your markets were up-country you could do without protection?

Mr. Bilimoria.—Perhaps.

Mr. Ginwala.—Is it not a fact that you are much more favourably situated up-country than at the ports?

Mr. Bilimoria.—This calculation does not take into account that advantage.

President.—The other main issue that we have been trying to put is, supposing protection were given on the scale you contemplate, would it do much good for two or three years? Your reply would be that it enables you to increase your output because you will get larger sales. There is, I admit, an advantage to that extent. But, as far as I can judge at present, for at any rate a year or two, protection would not affect the prices at all. The price would remain exactly what it is.

Mr. Bilimoria.—That is what I would impress upon the Board. It would not immediately raise the price. As a matter of fact the internal competition is so keen that no increase in price is possible in the present conditions, but there would be one relief, that would be that the Indian works would be able to sell a larger quantity than they are doing at present, by about the quantity which comes from foreign countries.

President.—I would like to put it to you in this way. Am I right in assuming that this Rs. 25 per ton duty is intended to be prohibitive, practically?

Mr. Bilimoria.—At least it is intended to effectually prevent foreign cement coming into the country at all.

President.—One point arises there then; even then at Burma and Madras foreign cement will come.

You remember what the Fiscal Commission said on a question of that kind, that it was not reasonable to arrange the scheme of protective duties so that factories situated a long way off should be able to command the market in every part of India.

Mr. Bilimoria.—I don't think Burma can be regarded as being situated away from one of the companies at least.

President.—So far as your company is concerned it would be a long way off.

Mr. Bilimoria.—So long as other companies can supply the Burma market it will mean a reduction of pressure on other markets.

President.—Take the Sone Valley Company for instance. Do you think, in view of the freight that is charged between Calcutta and Rangoon, it is reasonable that a scheme of protection should be arranged to enable that company or some other company similarly situated to command the Burma market?

Mr. Bilimoria. My point is that, if the Sone Valley Company can ship cement to Burma in place of foreign cement which is now being received in Burma, that will mean so much larger market for the other centrally situated companies.

President.—I do not doubt that, but is it reasonable?

Mr. Bilimoria.—It is, so long as there is no larger burden on the consumer.

President.—Burma is precisely the place where there is going to be a considerable burden on the consumer. It is these outlying markets where there would be little competition between the Indian companies, and the price would increase to the full extent of the duty at once.

Mr. Bilimoria.—I don't think so.

President.—Who is going to compete?

Mr. Bilimoria.—The Dwarka Cement Company as well as ourselves may be able to compete.

President.—What I am putting to you is: is it reasonable to arrange a scheme of protection on the basis that the manufacturer should necessarily be able to command the whole market? It is definitely opposed to what the Fiscal Commission said. There is a difficulty there.

Mr. Bilimoria.—I can appreciate those difficulties.

President.—Take Madras for instance. Your own factory at Shahabad is a parallel. It is much nearer Madras than most of the other factories are.

Mr. Ginwala.—When do you propose to manufacture cement at Shahabad?

Mr. Bilimoria.—After six months.

Mr. Ginwala.—Is it subject to your getting protection?

Mr. Bilimoria.—It is subject to some financial negotiations being concluded.

President.—There are difficulties in my mind still. It is one of those paradoxical cases in which I say "It won't do you any good" and you reply "It won't do any harm to the consumer."

Mr. Bilimoria.—Don't you think that the consumer is now taking an undue advantage?

President.—What do you expect the consumer to do? He is fulfilling the law of his nature which is to consume.

Mr. Ginwala.—Then, there is the proposal which you have made in your answer to Question 119 about additional duties. Have you really considered that?

Mr. Bilimoria.—We would rather prefer a fixed duty of Rs. 25 a ton to any such elaborate arrangement.

Mr. Ginwala.—Supposing the price comes down to Rs. 30 a ton owing to variations in exchange, or suppose the Japanese Government says "we will give you a rebate of 50 per cent."

Mr. Bilimoria.—Then the position will have to be reconsidered.

Mr. Ginwala.—You don't attach any importance to it?

Mr. Bilimoria.—I would prefer the general suggestion made about the imposition of a fixed duty.

Mr. Ginwala.—You don't want the duty to be varied except by legislation. That is what it comes to.

Mr. Bilimoria.—Yes.

Mr. Kale.—I want to ask you one question with reference to what Mr. Ginwala put to you. It occurred to me that you might not be able to compete with foreign cement in the Bombay market without protection, but it might be just possible for you to develop your more favourable markets as a sort of a counterpoise. Is that a practical proposition? For example, you are favourably situated so far as export to adjacent countries is concerned. You point out that there is a difficulty of sea freight and you suggest that something should be done in order to lower the freights. Is it your idea that protection should include some measures to be taken by Government or to be taken otherwise, so as to facilitate your export of cement to adjacent countries? Then again, in the case of the nearer markets, which you have shown in one of your answers to be Surat and Ahmedabad, for instance, where you are comparatively favourably situated, is it possible that those markets would develop in the course of the next 10 or 15 years so that you would be able to dispose of a larger portion of your production in those markets? And that will be a sort of set-off against the disadvantage which you are confronted with in relation to Bombay? That appears to me to be the only way of escape from the difficult position which lies in front of you.

Mr. Bilimoria.—I think that cement is an article of such diversified uses that, when proper propaganda is carried out for its use in substitution of other articles, then in the next 10 or 15 years to come, the consumption in the country itself, which we expect to grow in the natural course of things, should grow more on account of these various other uses.

Mr. Kale.—I want your opinion with regard to the favourable markets.

Mr. Bilimoria.—That would apply to the markets which you refer to, namely, the markets adjacent to us, Kathiawar, Guzerat, Surat, Poona, and a part of Rajputana. I believe that our sales in these adjacent markets will grow more than proportionately in course of time as the uses of the article are more publicly known and advertised.

Mr. Kale.—So that even if you lose in the Bombay market, you would be gaining in these other markets?

Mr. Bilimoria.—That is the position to-day.

Mr. Kale.—That was what occurred to me while I was reading that answer. I think that that is the only escape. Otherwise you won't be able to compete in the largest markets, *viz.*, Bombay and Calcutta.

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Witness No. 4.

THE GWALIOR CEMENT COMPANY, LIMITED.

(Agents.—The Indian Cement Co., Ltd.)

A.—Written.

Replies to questionnaire (1) (a) submitted by the Gwalior Cement Company, Limited, under cover of a letter, dated 12th June 1924, from the Managing Agents (The Indian Cement Company, Limited).

With reference to your letter, dated the 21st ultimo, forwarding copies of the questionnaire to be answered by the Cement Companies in connection with your Board's enquiry into the cement industry, we beg to forward herewith the answers to the questionnaire on behalf of the Gwalior Cement Company, Limited, of which this Company are the Managing Agents. We also enclose, as desired, 5 spare copies of each set of answers and trust that these will reach you in time. We have stated our case fully in our answers but in the event of your Board requiring us to tender oral evidence, we shall be prepared to send our representatives for the purpose to Simla. We would, however, point out that as their presence is imperative at a General Meeting of one of our allied Companies at Hyderabad on the 25th instant, it will not be possible for them to go to Simla between the dates mentioned by you. In the event, therefore, of our oral examination being considered necessary, we would request you to fix a date after the 30th June if you can possibly do so.

With reference to the information required by the Board in connection with "Works Costs" we have given all possible information bearing on the points and issues raised in the questionnaire and we leave it to the Board to publish such portions as they may consider necessary to enable the public to properly appreciate the case of the Cement Companies for protection.

ANSWERS TO QUESTIONNAIRE.

I. Introductory.

1. The Company was registered on 27th October 1919 as a Public Limited Company.

2. Of the share capital amounting to Rs. 25 lakhs about 95 per cent. is held by Indians.

The Board of Directors number 8, of whom 7 are Indians.

The superior management are all Indians except one European Manager at the Works and a European Kiln Burner.

3. Portland cement only is manufactured.

✓ 4. Our Banmor Factory commenced manufacturing cement from April 1923.

✓ 5. The full capacity of our Works as at present equipped is 40,000 tons of cement annually.

✓ 6. The output of the factory for the year, from April 1923 to April 1924 was 18,483 tons of cement-clinker.

7. Our factory is located at Banmor, on the Great Indian Peninsula Railway, 12 miles north of Gwalior City Station.

(a) It is advantageously situated in regard to the area from which our raw materials are obtained.

(*b*) Reasonably close to the Central Provinces coalfields though somewhat distant from the Bengal fields.

(*c*) Advantageously situated to the important markets of Delhi and the United Provinces.

(*d*) Labour is reasonably cheap and obtainable to our requirements when kept fully and continuously employed.

The water supply is ample and of excellent quality and our Works are served by the Great Indian Peninsula Railway Broad Gauge and the Gwalior Light Railway.

The most important factors in selecting the site for a cement factory in India are (1) an abundant supply of raw materials of the correct composition, (2) ample water supply, (3) suitable fuel supplies within reasonable distance of the Works site, (4) close proximity of the site to large cement consuming centres and easy access to the railway feeding those centres, (5) good and sufficient labour.

8. We manufacture only one kind of cement, *viz.*:—Portland cement, designated by the British Standard Committee on Portland cement as "Artificial Portland Cement."

9. Yes. We manufacture to the British Standard Specification. The British Standard Specification for Portland cement requires modifications applicable to British and Indian cements and such modifications are now under consideration. For India special clauses will be necessary only in so far as they relate to the temperature of the testing room and the setting time at the higher temperatures prevailing in India. These proposed changes are being now investigated by a Sub-Committee in India.

10. We claim that our cement is equal in quality and appearance to the best English cement, and superior to most of the imported cements. Our cement generally commands at least as good prices in competitive markets as Belgian, German or Japanese cements but there is still a definite bias in the minds of certain consumers in favour of English cement which enables it to command a few rupees premium but this bias is being gradually removed as consumers get more familiar with Indian cements.

II. RAW MATERIALS.

11. Limestone and clay.

12. (*a*) For an output of 20,000 tons per annum as at present running owing to lack of demand for cement our annual requirements of raw materials would be:—

	Tons.
Limestone	32,800
Clay	250

(*b*) For an output of 40,000 tons cement annually, *i.e.*, full capacity of our plant we require annually:—

	Tons.
Limestone	65,600
Clay	500

13. For 1 ton cement we require 1·64 tons limestone and 0·0125 tons clay. The approximate wastage is as under:—

(*a*) 3·50 per cent.

(*b*) 35·99 per cent.

(*c*) *Nil.*

14. 1·6525 tons of dry raw materials are required to produce one ton of clinker.

15. 1 ton of clinker is required to produce 1 ton of cement.

16. Limestone supplies are drawn from a hill of limestone about one-and-a-half miles in circumference and 300 feet high—the supply being ample for all our possible requirements.

The deposits are situated 32 miles from the Works on the Gwalior Light Railway. Clay in abundance is obtained from deposits within a mile of the Works.

17. The limestone is quarried and transported in 16 tons capacity open high-sided bogie wagons on the Gwalior Light Railway running from the quarries to the crusher in the factory. Clay is transported on donkeys as less than 2 tons is required daily for full output of the factory.

18. A royalty of Re. 1-4-0 per ton of cement going out of the Works is levied by the Gwalior Durbar in lieu of any royalty on raw materials concession charges, etc.

19. We give below the cost per ton of raw materials delivered at the factory:—

Limestone.

	Rs.
(1) Royalty	*Nil.*
(2) Labour	0·678
(3) Freight	1·309
(4) Miscellaneous charges	·095
	2·082

Clay.

	Rs.
(1) Royalty	*Nil.*
(2) Labour	·882
(3) Freight	
(4) Miscellaneous charges	

20. The terms were considered favourable in 1919 when the Company was floated but under to-day's altered conditions we find the royalty and water-cess and railway freight on raw materials rather burdensome.

21. The quality of the raw material is excellent and in 14 months' working has given every satisfaction; no deterioration will occur.

22. No deficiency.

23. The Company has obtained a lease for quarrying raw materials for a period of 30 years from 1st July 1920 from the Gwalior State. We regret a spare copy of this lease is not available.

24. No. We have the right to quarry any other limestone deposits found within a radius of 20 miles of the factory or 20 miles radius of the existing deposits.

25. No.

26. No.

27. We are endeavouring to get a reduction in rail freight rates on our limestone.

III. LABOUR.

A. *Quarry Labour.*

28. The number of labourers working at the quarries is not known to us as a contractor does all collection and wagon loading.

29. See 28.

30. Labour is indigenous.

31. The actual winners of the stone are men used to quarrying limestone for building and lime burning; labour easily trained.

B. Factory Labour.

32. For a few years more imported skilled labour is necessary.

33. At present there is only one skilled European Kiln Burner imported from England.

34. The factory was started with one European as Manager, the Assistant Manager and Chemist being an Indian having had a long training at the Indian Cement Company, Limited's Factory at Porbandar. Indian are being trained in all departments of cement manufacture, and it is anticipated that eventually the employment of the imported labour will be unnecessary.

35. The only imported help to-day is the Manager and the Kiln Burner and we have to pay in their case at least 50 per cent. more than a Manager or a Kiln Burner could get on the Works of the same size in Europe.

36. The total number of Indian workmen employed is 280 labourers. The average rates for the Indian workmen are as under:—

	Per day.		
	Rs.	A.	P.
General Foreman	6	10	8
Draftsman and Overseer	4	2	8
Electric Foreman	5	13	4
Power Plant Foreman	4	5	4
Workshop Foreman	2	13	4
Assistant Chemists	1 to 3	0 0	0 0
Shift Engineer	3	0	0
Burners	3	0	0
Wiremen	2	13	4
Greasers	0 to 1	14 8	0 0
Fitters	1 to 2	8 8	0 0
Ordinary Labourers	0 to 0	8 10	0 0
Female coolies	0	6	0

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37. The factory commenced manufacturing cement from April 1923. The total wages bill for the factory Indian labour for 8 months comes to Rs. 28,500, and the average wages per man in the different classes are same as stated in our reply to Question No. 36.

38. The Indian labour force is sufficient provided they can be kept together, *i.e.*, given whole time work continuously. It is mostly drawn from the vicinity of the Works; skilled labour such as engineers and artisans generally come from other parts of India.

39. The coolie labour here though not very intelligent improves with training, but in efficiency and stamina it stands somewhat lower than workmen in the more favourable climate of Europe and America.

40. Bungalows and quarters of stone have been constructed for all employees who are housed in a sanitary manner in single story quarters with good open spaces and ventilated.

IV. POWER (INCLUDING FUEL).

41. Electric power is obtained from Steam Turbo Alternators installed in the factory.

42. The cost per unit generated is annas 0·7852.

43. Coal fuel is used for steam raising purposes.

44. 0·525 tons fuel for power and all other purposes is required per ton of cement produced.

45. For the sake of economy we use first and second grade coal half and half. 50 per cent. of the coal fuel costs Rs. 1[illegible]-0-0 per ton and the other 50 per cent. costs Rs. 20-0-0 per ton f.o.r. Banmor (our Works).

46. No.

47. We do not use wood as fuel.

V. MARKET.

48. The total Indian production of cement since the factory commenced manufacture in 1923 is 235,229 tons.

49. The estimated total Indian demand for cement at present is about 350,000 tons.

50. As will be seen from the following remarks of Mr. Musgrave and Mr. Davies in the Indian Munitions Board Hand Book in 1918 the Government themselves were of opinion that India would need very large quantities of cement in future years:—

> " After the War when works at present in abeyance will be continued the requirements will be greater than ever. The use of ferro-concrete comparatively new even in Western World is extending very rapidly, bridges and heavy structural work of all kinds and even ships being made of it. It will in itself provide a big market for Portland cement. The opening up of Mesopotamia will also afford a large sale for Indian cement if it be available. . . . . . . The output of these factories being very much short of the present demands even, it will obviously not suffice for future requirements and there is still room for additional works in other parts of India."

The above prognostication has not been realised on account of the trade depression and more particularly on account of the severe retrenchment policy adopted by not only the Government of India but each Provincial Government and by various semi-public bodies which cannot fail to have a very adverse effect on the construction of public works and therefore on the use of cement. But there is every reason to believe that the Indian demand will substantially grow from year to year and the reasons for this belief are that when the existing financial stringency gradually disappears, more and more works of public utility as well as private building for both industrial and residential purposes will be taken up requiring the use of cement in steadily increasing quantities. The diversified uses to which Portland cement can be put particularly on account of its prevalent low prices will induce a larger demand for it in other directions and specially as a substitute in place of lime mortar. Experiments in connection with such substitution are now being carried on in the Gwalior State and by some Engineers in the United Provinces with successful results so far as regards efficiency and economy.

The total annual consumption of cement in this country has shown steady and at times even rapid progress as can be seen from a statement attached herewith. It will be seen that consumption increased by 25 to 35 per cent. yearly in the first 5 years. Then there was a sudden halt undoubtedly due to a large extent to the world economic crisis of 1907 which upset trade and industry all over the world but even in this period consumption was well maintained. In the next 5 years, we have again a very considerable increase, the figures for 1912-13 being as much as 60 per cent. over the highest figure of the previous quinquennium. 1913-14 shows a falling off from this as it must, because the last six months of this year were affected by the Great War with its financial and economic complications, scarcity of freight and difficulty of getting supplies from Europe where cement had become a most necessary war material. Fortunately, just at this time, the three Pioneer concerns, Katni, Bundi and The Indian Cement Company had come to the producing stage and consumption again started going up limited only by the available supplies, and we estimate it at about 2,52,000 tons for the year 1921-22 against 1,60,000 tons in the highest pre-war year. By this time retrenchment became the watch word with every Government, public or semi-public body and this was coupled with the depression in trade and industry which cannot but have a very adverse effect on the consumption of cement and yet consumption was well maintained even in 1922-23 and the figure is likely to be still higher for the year just closed. With the great need for the development of irrigation, communications, etc., that undoubtedly exists in this country, there is very little doubt that consumption will once more get into its stride as soon as the necessary finance is available at reasonable rate and should in a few years be able to take care of all the cement that can be produced by the various concerns now in existence.

51. The Company's principal markets in India are Delhi, the United Provinces, the Punjab, Central Provinces, Rajputana, and a few outlying parts of Gujarat.

52. All the markets named above are more or less distant from the ports. It is difficult to estimate the approximate demand in each of these markets as they are fed by a number of other indigenous companies.

53. We consider that export from our Gwalior Works to countries outside India is not probable.

54. Cement manufactured by us has been purchased by Governments, railways and public bodies. Since the commencement of manufacture, *i.e.*, April 1923 to April 1924, 800 tons of cement were supplied to the Indian Stores Department for the Military Stores Department at Khirgi and Tank at Rs. 60 per ton f.o.r. destination; railway freight from Banmor to Khirgi being Rs. 22-2-0, *i.e.*, Rs. 37-14-0 per ton f.o.r. Banmor.

About 400 tons were supplied to Great Indian Peninsula Railway at Rs. 36 per ton f.o.r. Banmor and 750 tons of cement requirements of the same railway to be supplied in the year 1924-25 at Rs. 34 per ton f.o.r. Banmor.

The Company is also under a contract to supply the cement requirements of the United Provinces Government up to 31st July 1924.

The Company have also supplied to the Port Commissioners, Calcutta, through their Agents about 400 to 500 tons cement at Rs. 49 per ton f.o.r. Howrah.

VI. FOREIGN COMPETITION.

55. The foreign countries from which cement is mainly imported to India to compete with the indigenous article are Britain, Belgium, Germany, Japan and Denmark.

56. The prevalent competition is only in the case of Portland cement as India does not manufacture any other variety.

57. This Company commenced to sell cement only from May 1923:—

(*i*) c. Rs. 75 to Rs. 55 during the year 1923-24.

(*ii*) c. Rs. 40 to Rs. 36 ex-Works.

58. The information as to the prices is obtained from the local market.

59. We are unable to give any opinion on this subject.

60. We believe that the prices at which foreign producers sell for export to India must be unremunerative, although we are not in possession of figures in definite support of such belief. The following extract, however,

from Cape Town correspondent's letter to the "Times" Trade Supplement appearing in the issue of 3rd May 1924 of that paper is very suggestive. Professor H. E. H. Fremantle, acting Chairman of the Board of Trade and Industries, South Africa, has especially investigated the dumping of cement in the Union and made the recommendation that a dumping duty of 2*s.* 5*d.* per cask should be imposed on English cement coming into the country at an f.o.b. price of 8*s.* per cask in accordance with existing law.

In regard to English cement, Professor Fremantle summarizes his case in the following passage:—

> "The latest figures available show that in the month of August 200,000 lbs. of cement were imported from the United Kingdom at an f.o.b. value of £200 and the figures for the preceding months, though much larger, are at much the same rate. The August figures work out at an export price of 7*s.* 11*d.* per cask. The home consumption value therefore was 10*s.* 4*d.* per cask and the export price was 7*s.* 11*d.* per cask. The amount of the dumping was thus 2*s.* 5*d.* The dumping duty enforced is 6½*d.* a cask. The duty which should have been enforced according to the law as I understand it is 2*s.* 5*d.* a cask."

The following extract from the Associated Portland Cement Limited's Annual Report for 1923, dated 15th April 1923, also lends support to the statement that foreign producers export cement to India at below cost of production:—

> "To hold our old standing (export market) connections it has been necessary to sell at net works' cost and occasionally even lower."

61. Foreign competition is naturally keenest at all the Indian Ports, as the freight on cement for several thousand miles of transport by sea from Europe is generally lower than what Indian Companies have to pay for railway transport to much smaller distances.

62. The low prices at which foreign cement has entered India since the termination of the war are, in our opinion, due to (*a*) the disorganised European exchanges, (*b*) the low freights offered by Steamship Companies in order to keep their vessels employed even at some loss rather than being obliged to lay them up, (*c*) the general trade depression following the war resulting in foreign countries having to export their products even at low prices in order to keep their hands employed and maintain their organisation.

63. Freight from Banmor:—

	Rs.	A.	P.	
Howrah . . .	15	14	4	Freight on imported cement to these Ports is approximately Rs. 12-8-0.
Bombay . . .	13	5	6	
Karachi . . .	25	10	0	

64. We give below the railway freights from the ports to the up-country markets and also from our factory to the same markets:—

	Railway freight from Ports.			Railway freight from Banmor.		
	Rs.	A.	P.	Rs.	A.	P.
Sukkur from Karachi . .	9	4	0	20	11	6
Khirgi from Karachi . .	20	13	9	22	9	3
Ahmedabad from Bombay .	9	1	4	15	14	4
Surat from Bombay . .	5	10	10	17	0	6
Nagpur from Bombay .	13	4	0	16	4	0
Poona from Bombay . .	4	4	0	12	5	6
Cawnpore from Bombay .	17	12	0	6	13	0
Delhi from Bombay . .	19	4	0	4	15	6
Tatanagar from Calcutta .	6	0	0	20	7	[illegible]

65. We have heard reports to this effect but possess no evidence in support of such reports.

66. We consider that as compared with the foreign manufacturer the Indian manufacturer is at a disadvantage in respect of all the points enumerated herein, except (*d*).

67. We consider that the disadvantages under (*a*), (*e*), (*g*), (*h*), and (*i*) are more or less of a permanent nature. The disadvantages under the remaining heads (*b*) and (*c*) are, in our opinion, temporary and would disappear within a period of 5 to 10 years. The disadvantage under (*f*) will persist so long as railway freights remain at their present level and continue to constitute a big handicap on the proper distribution of the finished article.

68. (*a*) The Indian manufacturers of cement except in the case of one or two Companies whose Works are situated comparatively near the coalfields are in a disadvantageous situation owing to distance of the coalfields from factories.

(*b*) As regards freight on the finished products we consider existing railway freights high and not conducive to expansion of market.

VII. EQUIPMENT.

69. Yes; a 40,000 ton unit plant is economically sound practice if location of plant is satisfactory.

70. Yes.

71. 69·79 per cent. of our total capital outlay has been incurred on plant and machinery.

72. Our Works operate on what is known as the Rotary Kiln "Wet" process. The plant consists of a large Gyratory Crusher for crushing limestone, Elevator, Storage bins, Fine Crushing Rolls, adjustable Feed Tables for proportioning the limestones, a combination Ball and Tube Mill for pulverising the raw material with water to form a "Slurry" or thick liquids "Slurry," bucket elevators, correction basins with air agitation, clay wash mill, "Slurry" storage tank with mechanical agitator, "Slurry" plunger Pumps, feeding device to control feed of raw material (Slurry) into the Rotary Kiln. One Rotary Kiln is installed in which the raw material is calcined; the kiln being complete with a Rotary Cooler with air blasts for cooling the clinker, the extracted heat being utilised in supplying hot air to the kiln for coal combustion, also for drying the coal in a Rotary Drying Drum.

Pulverised coal fuel is used for generating heat to calcine the raw materials, the coal plant consisting of crushing Rolls, Elevators, Storage Hoppers for wet coal, dried and pulverised coal, all in reinforced concrete; Rotary Dryer; one combination Ball Tube Mill for pulverising coal.

An automatic weigher for clinker is installed together with a shaking and chain conveyor to convey the clinker from the cooler to large storage bins and thence to the Hoppers over the clinker grinding mill. The clinker is ground in a combination Ball Tube Mill, elevated by Bucket Elevator and then by Rubber Band Conveyor to a reinforced concrete silo of 3,500 tons cement capacity.

The cement is filled into bags by a vacuum packing machine of which the Works are equipped with two, each capable of packing 10 tons of cement per hour.

All the cement-making machinery was supplied by Messrs. F. L. Smidth & Co. of London and Copenhagen and came into operation in March 1923.

All the machinery is driven by electric motors, the majority of which are direct connected through suitable steel reduction gears and flexible couplings to the various machines; 3 large motors being of the synchronous type with magnetic clutches connecting the grinding mill pinion shafts through flexible couplings.

Most of the electric motors were supplied by the General Electric Company of Schnectady, United States of America, and a few by The British Thompson Houston Company, Limited, Rugby, England. The steel reduction gears were supplied by Messrs. David Brown of Huddersfield.

The Power Plant consists of two Babcock and Wilcox Water Tube Boilers, each having 5,370 sq. ft. heating surface complete with mechanical chain grate stokers, Green's Economisers, integral superheaters and self-supporting steel chimney. The two steam Turbo Alternators are each of 1,000 K. W. capacity supplied by Messrs. The British Thompson Houston Company, Limited, of Rugby.

N.B.—A full detailed account of the plant and process of manufacture will be found in the Booklet on our Gwalior "Sun" brand cement enclosed herewith.

73. We consider our Plant to be the most up-to-date and efficiently equipped of any in the world.

74. Yes.

75. In designing our Plant we adopted the very latest process of manufacture and installed the most modern equipment obtainable, the plant being purchased in 1920 to 1921.

76. We designed the Plant for duplicating the present capacity of 40,000 tons annually as soon as the demand warranted the expenditure. Most of our buildings will accommodate the Plant necessary for duplication; our Power Plant and many mill units will suffice for the double output, which work will, therefore, require a proportionately small capital expenditure.

77. None of the cement-making machinery was manufactured in India and to the best of our knowledge no one manufactures such machinery, which is in the hands of a few expert manufacturers in Europe and America only.

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VIII. CAPITAL ACCOUNT.

78. (*a*)	*Nil.*			
(*b*)	*Nil.*			
* (*c*)	Rs.	27,75,459	0	1
* (*d*)	Rs.	12,00,904	2	3
(*e*)	Rs.	1,23,832	3	7
	Rs.	41,00,195	5	11

79. The figures given in answer to Question No. 78 represent the actual costs of various assets. No amount has been set aside to the Depreciation Fund Account as we have not been able to show any profit since we commenced manufacturing.

80. We have not been able to set aside any amount for depreciation since manufacture commenced as allowed by the income-tax rates which even we consider inadequate owing to heavy wear and tear of cement machinery.

81. We estimate Rs. 11,50,000 and Rs. 24,00,000 would be the present cost of building and machinery respectively, whereas cost of building and machinery to date of this factory without deducting any amount for depreciation is Rs. 12,00,904 and Rs. 27,75,460.

The operating cost of an entirely new plant would in no respect be less than at present.

---

* Replies to (*c*) and (*d*) should be reversed; see oral evidence.

82. The Company was registered in October 1919 and the following particulars of plant and machinery represent actual outlay on Capital:—

Boilers were purchased from Messrs. Babcock & Wilcox, Limited, and the payments were made as under:—

	£	s.	d.	
1920.	1,792	11	0	@ 1/5 $\frac{1}{16}$
1921.	448	9	10	@ 1/3 $\frac{7}{16}$
	844	0	5	@ ,, ,,
	619	19	11	@ 1/3 $\frac{1}{16}$
	4,380	0	1	@ ,, ,,
	2,801	3	6	@ 1/3 $\frac{7}{32}$
	3,302	7	4	@ ,, ,,
	1,515	9	7	@ ,, ,,
	683	6	11	@ ,, ,,
	43	7	9	@ 1/3 $\frac{11}{16}$
	14,638	5	4	

	£	s.	d.	
1922.	2,438	11	4	@ 1/3 $\frac{1}{32}$
	46	0	3	@ 1/3 $\frac{9}{32}$
	17	14	6	@ ,, ,,
	750	0	0	@ 1/3 $\frac{11}{16}$
	585	8	10	@ ,, ,,
	16	8	1	@ ,, ,,
	3,854	3	0	

	£	s.	d.	
1923.	585	8	10	@ 1/4 $\frac{1}{4}$
1920.	1,792	11	0	
1921.	14,638	5	4	
1922.	3,854	3	0	
1923.	585	8	10	
Total	20,870	8	2	
Less Rebate	48	1	7	@ 1/4 $\frac{1}{16}$
	20,822	6	7	

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Steam Turbines were purchased from Messrs. The British Thompson Hoaston Company, Limited, and the payments were made to them as under:—

	£	s.	d.	
1920.	2,960	18	0	@ 1/10·946
1921.	930	0	0	@ 1/3 $\frac{19}{32}$
1922.	2,969	8	6	@ 1/3 $\frac{21}{32}$
	8,121	18	5	@ 1/3 $\frac{5}{16}$
	5,704	0	0	@ 1/3 $\frac{23}{32}$
	7,109	9	1	@ 1/3 $\frac{19}{32}$
	23,904	16	0	

	£	s.	d.	
1923.	3,010	0	0	@ 1/4 $\frac{9}{16}$
	0	2	0	@ 1/4 $\frac{11}{32}$
	3,010	2	0	

	£	s.	d.	
1920.	2,960	18	0	
1921.	930	0	0	
1922.	23,904	16	0	
1923.	3,010	2	0	
Total	30,805	16	0	
Less Rebate	995	7	6	@ 1/4 $\frac{1}{32}$
	29,810	8	6	

Cement plant was purchased from Messrs. F. L. Smidth & Co., Copenhagen, and the payments were made to them as under:—

	£	s.	d.	
1920.	21,342	6	0	@ 2/8 $\frac{1}{4}$
	21,342	6	0	@ 1/10·946
	42,684	12	0	

	£	s.	d.	
1921.	5,000	0	0	@ 1/3 $\frac{1}{8}$
1922.	6,000	0	0	@ 1/3 $\frac{21}{32}$
	163	0	0	@ 1/3 $\frac{13}{16}$
	2,366	17	3	@ 1/4·229
	256	6	7	@ 1/3 $\frac{7}{16}$
	409	4	2	@ 1/3 $\frac{7}{8}$
	1,855	9	7	@ 1/3 $\frac{7}{16}$
	696	16	2	@ 1/3 $\frac{5}{16}$
	982	12	2	@ 1/3 $\frac{5}{32}$
	90	10	11	@ 1/3 $\frac{19}{32}$
	874	5	6	@ 1/3 $\frac{21}{32}$
	0	5	8	@ 1/10
	1,625	14	6	@ 1/3 $\frac{21}{32}$
	588	18	6	@ 1/4
	282	4	1	@ 1/4 $\frac{1}{32}$
	0	0	10	@ 1/3 $\frac{7}{16}$
	19,192	2	5	

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	£	s.	d.
1920.	42,684	12	0
1921.	5,000	0	0
1922.	19,192	2	5
Total	66,876	14	5
Balance to be paid in 1925.	7,098	12	0
	73,975	6	5

Motors and Switchgears were purchased from Messrs. The International General Electric Company, New York, and payments were made as under:—

	£	s.	d.	
1921.	7,500	0	0	@ 1/4
	2,500	0	0	@ 1/3 $\frac{5}{8}$
	540	17	5	@ 1/3 $\frac{19}{32}$
	10,540	17	5	

	$	
1922.	6,853.00	@ 360·00 Rs.
	1,291.17	@ 352·50 „
	547.30	@ 360·00 „
	289.44	@ 361·00 „
	8,980.91	

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£	s.	d.	
1,071	9	0	@ 1/3 $\frac{3}{8}$
424	19	0	@ 1/3 $\frac{13}{16}$
812	5	5	@ 1/3 $\frac{7}{8}$
2,308	13	5	

	£	s.	d.
1921.	10,540	17	5
1922.	2,308	13	5
Total	12,849	10	10

@ $8,980.91.

83. The authorised Capital of the Company is Rs. 40 lakhs, divided into 40,000 shares of Rs. 100 each, out of which 25,000 shares of Rs. 100 each have been subscribed. The total amount paid by the Shareholders is Rs. 24,96,040.

84. The Capital of the Company has been divided into ordinary shares only and no Preference Shares have been issued.

85. The Company have not issued any Deferred Shares.

86. No dividend has been declared by the Company since its establishment.

87. *Nil*. Please see our reply to Question No. 86.

88. The Company has raised a Debenture Loan for Rs. 10 lakhs. 100 Debentures of the face value of Rs. 10,000 each were issued on 1st October 1922, bearing interest at 8 per cent. per annum. Five of the Debentures shall be redeemed by the Company every year on 1st October commencing from 1924 to 1931. The remaining Debentures amounting to Rs. 6 lakhs shall be redeemed on 1st October 1932. No Debenture Sinking Fund has been established by the Company.

89. *Nil.*

90. We have no extension or replacement scheme in contemplation at present.

IX. COST OF PRODUCTION.

91. *Form I.*

Statement showing the total expenditure incurred on the production of cement from 1st July to 31st December 1923.

	Rs.	A.	P.
1. Raw materials	22,991	11	0
2. Factory labour	14,280	11	9
3. Power and fuel	1,03,105	14	5
4. Ordinary current repairs and maintenance of buildings, plant and machinery . . .	38,270	15	10
5. General services, supervision and local office charges	45,828	1	11
6. Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	19,336	1	9
7. Packing	40,171	1	7
	2,83,984	10	3

Quantity 7,400 tons cement.

This represents the cost for bagging only a part of cement manufactured and not the whole quantity, as all cement is not packed immediately after manufacture, but is stored loose in the cement warehouse.

Form II.

Statement showing the Works cost per ton of cement:—

1. Raw materials	3·10
2. Factory labour	1·93
3. Power and fuel	13·93
4. Ordinary current repairs and maintenance of buildings, plant and machinery	5·17
5. General services supervision and local office charges	6·19
6. Miscellaneous, *e.g.*, rent, municipal taxes, etc. .	2·61
7. Packing	9·00
TOTAL .	41·93
Less for Gypsum .	1·00
	40·93

7,400 tons of cement.

This represents the actual cost for packing 1 ton of cement.

92. We cannot give the comparative statements of costs from 1921 to 1923 as the Company commenced manufacture from April 1923 only.

If the factory had been working at its full capacity the Works costs would have been as under:—

1. Raw materials	3·10
2. Factory labour	1·75
3. Power and fuel	9·18
4. Ordinary current repairs and maintenance of buildings, plant and machinery	2·50
5. General services, supervision and local office charges	2·30
6. Miscellaneous, *e.g.*, rent, municipal taxes, etc.	1·88
7. Packing	9·00
TOTAL	29·71
Less for Gypsum	1·00
	28·71

93. Yes; because we had to pay higher prices for coal and gunny bags at the commencement than the price prevalent to-day. We submit below an estimate for Works costs for future years on assumption that the output will be obtained equivalent to the full capacity of the plant:—

1. Raw materials	2·300
2. Factory labour	1·650
3. Power and fuel	7·296
4. Ordinary current repairs and maintenance of buildings, plant and machinery	1·240
5. General services, supervision and local office charges	2·030
6. Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	1·830
7. Packing	7·300
TOTAL	23·696
Less for Gypsum	1·000
	22·696

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94. No. We have not adopted the monthly system of cost accounting, as at present we are unable to manufacture continuously.

95. We are not in a position to furnish the information

96. Rates allowed by the Income-tax Authorities are as under:—

	Per cent.
Cement machinery	7½
Buildings, housing, machinery	2½
Godowns, etc.	5
Furniture	5

Owing to the fact that cement factories have to run continually for all the 24 hours and the heavy wear and tear of the machinery, we consider the rate of depreciation should not be less than 10 per cent. for machinery.

97. The statement showing the sum required annually for depreciation at income-tax rates on the total block account if the assets are valued at cost:—

	Rs.	A.	P.
Machinery	2,08,159	6	9
Buildings	25,572	3	5
Furniture	15,092	6	2
	2,48,824	0	4

We consider the rate for depreciation on machinery should not be less than 10 per cent. and accordingly we beg to submit figures as under:—

	Rs.	A	P.
Machinery	2,77,545	14	5
Buildings	25,572	3	5
Furniture	15,092	6	2
	3,18,210	8	0

98. Please see page 200.

99. Please see page 200.

100. According to the present output the Company requires Rs. 6,00,000 as a working capital and Rs. 9,00,000 in case the factory works at full capacity.

101. The company is not able to provide the Working Capital it requires from Shares and Debenture Capital.

102. The Company has borrowed for the Working Capital Rs. 6 lakhs from the Managing Agents and the Imperial Bank of India, the rates of interest to be paid are 1 per cent. above Bank rate to the Managing Agents and 6½ per cent. to the Imperial Bank of India.

103. Cost of month's output is Rs. 1,36,675 according to the Works cost only. The chief reason why Rs. 9,00,000 would be needed as working capital is that (*a*) special spare parts of machinery are to be stocked, (*b*) in Banmor it is not possible to obtain all kinds of stores immediately and we have to keep the same in stock, (*c*) it is not the practice of buyers to pay cash against delivery which means large outstandings, (*d*) owing to the shortage of wagon supply and also owing to long distances between the coal collieries and factory we have to keep in stock a sufficient quantity of fuel.

104. The average value of the finished goods stocked by the Company is about Rs. 3 lakhs. It takes about 3 to 4 months between production and payment when markets are normal.

105. It is necessary to keep in stock coal of the value of Rs. 50,000, when the factory is working continuously which would be only two months' supply.

106. Besides the office of local management at the Works the Company has an office at Bombay which is under the control of the Managing Agents.

107. The annual amount of the Bombay office expenses is Rs. 20,000 and the Managing Agents are entitled to 10 per cent. commission on the net profits.

108. From and after the registration of the Company a commission at the rate of 10 per cent. per annum on the annual net profits of the Company after making all proper allowances and deductions from revenue for interest on loans and deposits and for working expenses chargeable against profits, but without making any deductions for or in respect of interest on debentures or of any amount carried to depreciation, insurance, reserve for sinking fund or any other special fund, in respect of any expenditure on capital account.

109. According to the present output the cost of Bombay Office expenses come to Re. 1 per ton, whereas on the output equivalent to the full capacity of the plant it will come to only Re. 0·50 per ton. Agents' commission depends upon profit made by the Company.

X. MANUFACTURER'S PROFITS.

110. Twelve per cent. on Ordinary Shares and 15 per cent. on deferred shares.

111. (*a*) 10 per cent. on Preference Shares.

(*b*) 8½ per cent.

112. A return of less than twelve per cent. on Ordinary Shares would not attract investors.

113. (*a*) Rs. 7½ is the incidence per ton when the output is equivalent to the full capacity of the plant for declaring a fair dividend on the Capital invested in this Company.

On the present rate of output the incidence per ton would come to Rs. 15.

(*b*) The Company have not issued Preference Shares.

(*c*) Rs. 2 and Rs. 4 are the incidences per ton of cement when the output is equivalent to the full capacity of the plant and at the present rate respectively for interest on Debentures.

XI. CLAIM FOR PROTECTION.

114. The Indian Fiscal Commission laid down the following three conditions to be satisfied by a particular industry before the Tariff Board recommended it for protection:—

(1) The industry should be one possessing natural advantages.

(2) The industry must be one which without the help of protection is either not likely to develop or is not likely to develop so rapidly as is desirable in the interests of the country.

(3) The industry must be one which will eventually be able to face world competition without protection.

Of the above there can be no question that the cement industry fulfils the first condition better than any other industry, as all the necessary material is available in large quantities and in more than one part of the country and the labour and the markets are also there.

We can also confidently say that if this industry is not allowed to succumb to present abnormal world conditions but is enabled to survive, it will certainly be in a position ten or fifteen years hence to face world competition, because with the great need India has of development of irrigation and other public works, the demand should by then be nearer the present output capacity and enable production to be made in this country at the lowest economic cost. Therefore we think we can confidently say that the cement industry is one that will be able to fulfil condition 3 abovementioned.

As for condition 2, the position unfortunately is that the industry has, under the impetus of war conditions and the expectations then raised, developed but too rapidly and as events prove, the present output capacity is far in excess of the present requirements of the country. But we submit that there is all the more reason why steps should be taken to see that it does not succumb to the present abnormal conditions. Condition 2 clearly emphasises the need of development and would even advocate steps to make it more rapid if such development as there was, was too slow in the interests of the country. It could not, therefore, have been the intention that a largely developed industry should be allowed to go under and disappear and that no efforts should or need be made to save it, because such an attitude would make futile the endeavours and sacrifices made by the country for the development of its industries.

It is, therefore, we submit, a necessary corollary of condition 2 that the Tariff should be raised sufficiently high to at least ensure to the manufacturers of this country the full benefits of the markets of their own country and thereby enable them to live.

115. (*a*) Our answer is in the affirmative.

(*b*) Even now the needs of the country can be met twice over by the indigenous product shutting out all foreign imports.

116. The fact that the combined output of the then existing Cement Companies was commandeered by the Indian Munitions Board during the war period is evidence that the industry is of importance on national grounds.

118. Our claim for imposition of protective duties applies to Portland cement and not any other cements which can readily be distinguished for customs purposes from Portland cement.

119. Before answering this question in detail, we would respectfully point out in view of the present capacity for production in this country being far greater than the present consumption that it will be an economic extravagance to allow any foreign cement to enter the country and that the figure of duty should therefore be put sufficiently high to achieve this purpose. If this is done, then the necessity for special separate measures to counteract the causes named in clauses (*a*) and (*b*) would be unnecessary. However, as the Board has asked for our views as to what detailed steps we might think necessary in case they do not approve of our suggestion of a prohibitive duty, we beg to reply as follows:—

(*a*) It is extremely difficult to have any sliding scale of duties that can cope with the wide and sudden fluctuations of exchange, the most recent example of which is the variations both up and down of the Belgian and the French Franc in a very few weeks. A suitable method of meeting the situation is suggested in a latter part of this query under 119 (*c*) for the consideration of your Board.

(*b*) Where a freight subsidy is given a countervailing duty in addition to the normal duty and equal to the freight subsidy would be the right measure.

(*c*) If the Board has arrived at the figure of cost of Indian cement on the respective present outputs of the Companies, *i.e.*, the figure which Indian Companies should secure in order to live (and this can be very easily ascertained from the costs that form the basis of payment in the contract with the Bombay Development Department), it follows that all measures should aim at securing such figures to the Indian Cement Companies. It is impossible to provide in a Tariff Schedule for any sudden changes in foreign selling prices from unforeseen causes, but it can be done in another way and we submit the following for the Board's consideration :—

(1) The figure reached by the Board as above should be the basis selling price.

(2) The Board may arrive at the figure of the "normal import price" to-day and the difference between the two might be made a specific import duty per ton.

(3) It may further be provided that on all invoices on which calculated at the exchange of the day—the importing cost is less than the "normal import price," an additional duty shall be collected equal to the differential between the actual import cost in rupees and the "normal import price."

(4) All invoices for cement (and this should apply to all goods which come under the regimë of protective duties if invasions are to be reduced to a minimum) should have consular invoice attached to them to form a satisfactory basis for calculation of the differential.

120. (*a*) The present Customs duty of 15 per cent. might have proved useful when cement was quoted at Rs. 100 to Rs. 150. With the low prices at which cement is selling to-day, the duty is not deterrent to the importation of foreign cement by those users who still think English cement superior and more reliable although there is no longer any ground for such belief and Indian producers are prepared to undergo the strictest tests.

(*b*) Transport charges of foreign cement to Indian ports are as shown elsewhere, actually lower than those incurred by Indian producers to most Indian markets and the most important markets are at the ports.

121. We consider that the duty should be such as to effectively prevent the entry of foreign cement when the Indian product is available in any required quantity and of satisfactory quality. It is a sheer economic waste for India to throw away large sums on an article that it can get within its own borders and India cannot afford such waste.

From this point of view, we consider a specific duty of 25 rupees per ton essential, as then those that still want foreign cement would have to pay for it and would be gradually forced to see whether they could not do equally well by using the local product.

Although not coming within the terms of reference to the Tariff Board, we do not think it irrelevant to point out that the stoppage of all unnecessary imports *pro tanto* improves the Balance of Trade of this country and has a strengthening effect on its exchanges and by keeping the money in the country it adds to the store of capital for industries of which this country is so badly in need. These are considerations that, altogether apart from the saving of a struggling national industry should have weight with both the Government and the Legislature when the question of a suitable Tariff is under consideration.

It may be contended that there was no meaning in Indian consumers being asked to pay a higher price when they can get the imported article cheaper. But while this seems sound as between one individual and another, the case is entirely different as between one country and another. As a country India has to see whether it is gainer by imports at a cheaper rate than can be produced in the country. To do this it must see whether the same number of its children as are now employed in the cement industry could produce the same amount of wealth in other occupations. The only occupation that most of them can turn to-day is agriculture and the Committee can easily see that the total increase in national income from agriculture from the labourers of the few thousand men now employed in the cement industry would be much smaller than the value of the cement produced by them represents to the country to-day and it would show that the country is distinctly a gainer even if individual consumers had to pay a higher price, but in the case of cement there is not likely to be even this drawback.

122. It is true that the present productive capacity exceeds the total consumption of the country and that is exactly why we advocate a Tariff sufficiently high to keep out foreign cement, because if it can be kept out, the local product would have its market expanded *pro tanto*.

The approximate production by Indian Companies for 1923-24 should be about 250,000 tons and the imports for the same period 110,000 tons. Elimination of such imports by a suitable tariff would have the effect of expanding the market for the local product by over 40 per cent. and would have a very appreciable effect in putting heart into Indian Companies and in cheapening their costs. As even with such expansion the available market would be much under the total capacity of the present works, the consumer would be fully safeguarded because competition amongst Indian Companies will remain keen on account of the fact that marketing a larger output would mean a lower cost and consequently a greater chance of showing a good margin of profit.

98. The sum of Rs. 2,08,750 will be required annually for depreciation at income-tax rates whereas Rs. 2,68,750 will be required at the rate of 10 per cent on manufacture which we consider suitable.

99. According to the present and full output of the factory, namely, 20,000 and 40,000 tons respectively the incidence per ton of cement at income-tax rate is Rs. 12·44 and Rs. 6·22 respectively, whereas at the rate of 10 per cent. on machinery the incidence would be Rs. 15·90 and Rs. 7·95 respectively.

In view of our answer to Question No. 81 the incidence per ton of cement at income-tax rate would be Rs. 5·21 and if 10 per cent. is allowed on machinery, the incidence would be Rs. 6·71.

APPENDIX.

Question No. 50.—Total imports of cement into India from 1901-02 to 1922-23.

Year.	Tons.
1901-02	34,450
1902-03	32,320
1903-04	46.690
1904-05	62,110
1905-06	89,420
1906-07	85,720
1907-08	89,390
1908-09	98.230
1909-10	100.610
1910-11	126.640
1911-12	116.950
1912-13	160.560
1913-14	146,520
1914-15	144.970
1915-16	131,630
1915*	18,000*
1916-17	89.390
1916*	38,664*
1917-18	83.750
1917*	73,726*
1918-19	27,180
1918*	84,344*
1919-20	91,800
1919*	86,814*
1920-21	130,720
1920*	66,320*
1921-22	124,720
1921*	128,627*
1922-23	133,260
1922*	147,615*
1923-24	113,137
1923*	235,229*

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* Indigenous production.

Statement II.—Further statement submitted by the Gwalior Cement Company, Limited, dated the 8th July 1924.

As requested by the President of the Tariff Board, we herewith beg to give you the particulars asked for.

* * * * * * *

Question No. 63.—Distance of stations from Banmor to—

	Miles.
Karachi *viâ* Delhi	1,088
Karachi *viâ* Idgah	841
Howrah	819
Bombay	775

Statement III.—Replies to Questionnaire (1) (b). Letter, dated 3rd December 1924.)

With reference to your letter No. 1276, dated the 23rd November 1924, we beg to enclose herewith a schedule showing the figures called for in paragraphs 2 and 4 for the total despatches of cement, the total output of factory, etc.

As regards your enquiry in paragraph 3 of your letter under reply we have to state that the differences in figures to which you refer are accounted for by the causes mentioned under sub-heads (1), (2) and (3).

With reference to your enquiry in paragraph 5 of your letter regarding packing of cement in barrels, we beg to submit that the cost of packing cement in barrels is not only excessive but quite prohibitive, as compared to the cost of packing cement in bags which will be seen from the following figures:—

	Per cask. Rs.	 A.	 P.
Cost of material, *i.e.*, casks, staves and heads as per enclosed quotation, dated the 1st November 1924, from Messrs. Harrison and Crosfield, Quilon, c.i.f. Bombay	2	1	0
Railway freight to our Works	0	8	0
Making lining with paper and iron hooping casks	0	10	0
	3	3	0

A cask should hold 374 lbs. nett of cement, therefore 6 casks would be required for each ton of cement. Thus casks would cost Rs. 3-3-0 × 6 = Rs. 19-2-0 per ton.

THE GWALIOR CEMENT COMPANY, LIMITED.

Reply to paragraphs 2 and 4 of letter No. 1276, dated Poona, 23rd November 1924, from G. C. F. Ramsden, Esq., I.C.S., Secretary, Tariff Board.

* * * * *

Paragraph 4.

(*a*) The total output of our factory for the first six months of 1923-24 was tons 13,272 and for the first six months of the year 1924-25 was tons 4,871.

* * * * *

Copy of a letter from Harrison and Crosfield, Limited, Quilon, dated the 18th November 1924, to the Gwalior Cement Company, Bombay.

With reference to your letter No. G/325, dated the 5th instant, we have pleasure in advising that we are sending you samples of cement barrels, staves, tops and bottoms. We are sending you two kinds:—

1. Barrel in Cheeni, staves tongued, grooved and shaped;
2. Barrels in cottonwood rough sawn;

and shall be glad of your report as early as possible. The question of tonguing, etc., is left entirely to you as we are quoting for both types as follows:—

We regret we are unable to quote f.o.r. Banmor as rail freight is prohibitive but we can quote c.i.f. Bombay as follows:—

Cement barrels 28″ high, tops and bottoms 16½″ in Cheeni or cottonwood ¾″ planks tongued, grooved, shaped and champered, Rs. 2-1-0 each, c.i.f. Bombay, bundled with coir rope.

Cement barrels rough sawn sizes for above dimensions Re. 1-13-0 each bundled with coir and delivered c.i.f. Bombay. For the present we have sent all 3″ staves, but you will, of course, understand that this cannot always be done and the staves may vary from 2½″ to 4″ in width. For your guidance we have marked the inside of the barrel.

As regards output we have now ample facilities for an outturn of 3,000—4,000 barrels monthly, but this can be considerably increased if required.

Statement IV.—Further supplementary information submitted by the Gwalior Cement Company, Limited, dated the 2nd February 1925.

We are in receipt of your wire of the 31st ultimo. Please note that the total output and total despatches of the Gwalior Cement Company, Limited, are 9,945 and 12,027 tons respectively.

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THE GWALIOR CEMENT COMPANY

B.—ORAL.

Evidence of Messrs. P. J. BILIMORIA and R. S. SYMONS, recorded at Simla on Wednesday, the 2nd July 1924.

President.—As regards Gwalior: my first point is with reference to your reply to Question 45. You would have to divide these coal costs into coal costs and freight.

Mr. Bilimoria.—In the first case it is Rs. 5-4-0 *plus* Rs. 6-12-0 and in the second case Rs. 9-8-0 *plus* Rs. 10-8-0.

President.—Then in your answer to Question 51, you say "The company's principal markets in India are Delhi, the United Provinces, the Punjab, Central Provinces, Rajputana, and a few outlying parts of Gujarat. Can you give us any sort of idea of how much you send to each of the markets or to some of them?

Mr. Bilimoria.—We started manufacturing only in May.

President.—If you could give us the important places and the quantities sent to them, it would be useful.

Mr. Bilimoria.—Yes, we will send you that.*

President.—On page 11, you have given us freights to certain places from the ports. You have not given the distances in each case. That is not a point of great importance if you don't remember.

Mr. Bilimoria.—We have not got the distances here.

President.—On page 14, I think that your building and machinery figures have got reversed in your answer to Question 78.

Mr. Bilimoria.—I am sorry for the mistake.

President.—As regards your future estimates of the works cost: take first of all packing. You have brought it down to Rs. 7·3. Is it for the same reason as in Porbandar's case?

Mr. Bilimoria.—Yes.

President.—In the case of power and fuel, it is a smaller reduction?

Mr. Bilimoria.—Yes, because we were using all Bengal coal and the price at pitsmouth was Rs. 14 a ton. It has now come down. It is Rs. 12 and Rs. 20.

President.—It is based on Rs. 20 and Rs. 12?

Mr. Bilimoria.—Yes.

President.—Your raw material has come down substantially.

Mr. Bilimoria.—That is because we have made certain improvements in the process of quarrying, supply and transport.

President.—You have got to bring your raw materials from some distance.

Mr. Bilimoria.—32 miles.

Mr. Ginwala.—In your answer to Question 18, you say that the royalty is Re. 1-4-0 a ton. Is not that a very high rate of royalty?

Mr. Bilimoria.—It was not considered high at the time when it was fixed up.

Mr. Ginwala.—Is Gwalior a shareholder in this or not?

Mr. Bilimoria.—No. They have taken Rs. 10 lakhs of debentures.

Mr. Ginwala.—In your answer to Question 19 you have given the freight. Does the railway belong to the Gwalior State?

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* Not printed.

Mr. Bilimoria.—Yes.

Mr. Ginwala.—That is very high.

Mr. Bilimoria.—Yes, it was originally fixed 50 per cent. lower but during the construction of the works they said that the rate must be raised. So, we had to agree.

Mr. Ginwala.—Is it a light railway?

Mr. Bilimoria.—Yes (2 ft. line).

Mr. Ginwala.—Then, you say that the Company has secured a lease for 30 years. Is that a sufficiently long period?

Mr. Bilimoria.—It is a fairly long period.

Mr. Ginwala.—Have you got any option after 30 years?

Mr. Bilimoria.—We have option for renewal for further 30 years.

Mr. Ginwala.—What about the rates?

Mr. Bilimoria.—On conditions to be mutually agreed to.

Mr. Ginwala.—That is no option then.

Mr. Bilimoria.—That is the usual arrangement between two respectable parties.

Mr. Ginwala.—What about the water dues?

Mr. Symons.—Water has got to be brought from a dam which is at a distance of 14 miles from the Works. It is stored by the Irrigation Department. They charge a cess for it.

Mr. Ginwala.—Where is it shown in your costs?

Mr. Bilimoria.—It would come under rates and taxes.

Mr. Ginwala.—How much does it come to per ton?

Mr. Bilimoria.—At present it comes to about four annas per ton, but we have applied to the State for a reduction.

Mr. Ginwala.—In your answer to Question 54, you seem to have quoted very low rates, *viz.*, Rs. 37-14-0 per ton f.o.r. Banmor. Is that because of the keen competition in India?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—You have come down as low as Rs. 34.

Mr. Bilimoria.—Recently we have gone lower than that. We have tendered for Rs. 30 to the Chief Controller of Stores.

Mr. Ginwala.—The freight from Banmor to Khirgi is Rs. 22-2-0.

Mr. Bilimoria.—The freight has to be added to Rs. 37-14-0. We sold them at Rs. 60. The Punjab Company was the competitor. Their rate was only very slightly higher. That is why we got it.

Mr. Ginwala.—What is this contract with the United Provinces Government.

Mr. Bilimoria.—That is at Rs. 40 a ton. It expires at the end of this month.

Mr. Ginwala.—How many tons have you got to supply?

Mr. Bilimoria.—The nominal quantity mentioned is 4,000 tons. But they are at liberty to take less than 4,000 tons. They are actually taking six or seven hundred tons.

Mr. Ginwala.—That is f.o.r. works?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—How do you finance this Rs. 41 lakhs?

Mr. Bilimoria.—Share capital is Rs. 25 lakhs. Debenture capital is Rs. 10 lakhs. Loan by the Indian Cement Company is 11½ lakhs.

Mr. Ginwala.—Is that in addition to the share capital?

Mr. Bilimoria.—Yes. Loan by the Imperial Bank is Rs. 2¼ lakhs. The rest is working capital, that is, whatever is above Rs. 41 lakhs.

Mr. Ginwala.—What do the debentures carry?

Mr. Bilimoria.—8 per cent.

Mr. Ginwala.—In Form No. II, you give your total works cost as Rs. 41 in round figures: then you say that, if the factory had been working at its full capacity, it would come to Rs. 29. Why should it make so much difference?

Mr. Bilimoria.—Because the production was only 7,400 tons—equal to about 15,000 tons as against 40,000 tons output. That would make a considerable difference.

President.—Why should power and fuel come down by Rs. 4 a ton?

Mr. Bilimoria.—Because if we run our factory on a shorter output, the boilers and kiln consume more coal.

President.—You merely say "if the factory had been working at its full capacity." You are not entitled to take different rates.

Mr. Bilimoria.—Because the factory is not working at its full capacity, there is this difference. The increase in the power and fuel is due to the fact that boilers consume more fuel. If the working of the factory is spasmodic, the kiln also consumes more fuel.

President.—That seems to me a very considerable difference.

Mr. Symons.—There will be. For the first two or three days, you would be using one ton of coal for a ton of cement because intense heat has to be obtained.

Mr. Ginwala.—General services, supervision and local office charges are based on actuals, are they not?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—Why should they go down by so much?

Mr. Bilimoria.—Because of the larger output.

Mr. Ginwala.—Have you simply divided the total by the output?

Mr. Bilimoria.—Not only that, but we have taken this also into account. If the works are not working to its full capacity, the cost of repairs in the case of a smaller output will be not exactly proportionately less but a little more.

Mr. Ginwala.—I can understand general services, etc., coming down because they remain the same. There would not be any increase because the output goes up. But I cannot understand why repairs and maintenance should go down.

Mr. Bilimoria.—If you produce only 15,000 tons, and suppose you spend Rs. 15,000 on repairs during the year, the incidence per ton will be more than if you produce 40,000 tons and spend Rs. 25,000 on repairs.

President.—In Form II, I find that the cost of repairs, etc., is Rs. 5·17 per ton and in the estimate of your future cost it is shown as Rs. 2·20. Well, one figure is just about half the other and as the full output is just about double, it seems that you have divided the same sum by a larger divider. Mr. Ginwala's criticism of that procedure is that it is not fair to do that, because you would actually spend a larger sum on repairs, so that you are not entitled to bring it so low as that.

Mr. Symons.—When the factory is intermittently working, we have to find work for practically the whole of the staff and such men are included under repairs. They have to do some work. That is unfortunately the trouble.

Mr. Ginwala.—There is a further reduction in your answer to Question 93 of about Rs. 6. That is also on the full output. When do you expect to get to this figure?

Mr. Bilimoria.—We have a large stock of bags which we have bought at high prices, but in the matter of coal we have come up to this figure.

Mr. Ginwala.—That reduces the cost by nearly two rupees.

Mr. Bilimoria.—As a matter of fact the April figures which were subsequently received from the Manager corroborate these.

Mr. Ginwala.—Let us see the actuals for April.

Mr. Bilimoria.—Rs. 7·2 is the actual figure for coal.

Mr. Ginwala.—You have got up to Rs. 26 just now for April.

Mr. Bilimoria.—That includes interest and overhead charges.

Mr. Ginwala.—Give us the nett works cost.

Mr. Bilimoria.—It comes to Rs. 23·3 really.

Mr. Ginwala.—That is very near your estimate. Your answer to Question 94 I do not understand. You have got a monthly system of cost accounting?

Mr. Bilimoria.—For the months it is worked, but not continuous.

Mr. Ginwala.—You only work one week at a time?

Mr. Symons.—No. We started, for instance, in the last week in March—24th of March, worked the whole of April till the 10th of May.

Mr. Ginwala.—The Indian Cement Company are the managing agents of the Gwalior Company?

Mr. Bilimoria.—Yes.

Mr. Ginwala.—They are getting commission at this rate?

Mr. Bilimoria.—In the meantime they have sunk Rs. 26 lakhs and do not get interest from the Gwalior Company so that they are not in a very favourable position.

Mr. Ginwala.—I do not understand the arrangement of the one company being the managing agents of the other.

Mr. Bilimoria.—It was originally intended to start an offshoot of the Porbandar Company in Gwalior.

Mr. Ginwala.—This company are the managing agents of the Gwalior Company and the Tatas are the managing agents of the Indian Cement Company. So Tatas are really the agents of the Gwalior Company.

Mr. Bilimoria.—No, because the agents' commission in this case will go to the Indian Cement Company and forms part of the profits of the Indian Cement Company. Tatas indirectly get only 1 per cent. on the profits of the Gwalior Company.

Witness No. 5.

THE DWARKA CEMENT COMPANY, LIMITED.

(Agents.—Messrs. PURSHOTAM VITHALDAS & Co.)

A.—WRITTEN.

Statements I to III.—Please see under Witness No. 1.—Indian Cement Industry.

Statement IV.—Replies to questionnaires from the Dwarka Cement Company, Limited.

With reference to your No. 398 of the 21st ultimo forwarding three copies of the questionnaire, we have pleasure in sending you herewith our replies to the same with five spare copies as desired by you.

If after perusal of these replies, the Board considers that a representative of our firm should be examined orally, we shall be glad to send one for the same provided at least a week's notice is given to us to adjust our appointments.

With reference to question No. 91 of the questionnaire we have to request you that the works cost figures furnished by us in answer to this question should be treated as confidential and no publicity should be given to the same without a reference being made to this office.*

ANSWERS TO QUESTIONNAIRE.

I. INTRODUCTORY.

1. This Company was established on the 20th February 1919 as a Public Registered Company under the Indian Companies Act, 1913.

2. Roughly 85 per cent. of the capital invested in this Company is held by Indians, and the Directors, except one who is a European Jew, are Indians. The superior management of the Company is vested in Indians only.

3. We manufacture cement only at present.

4. The factory under our control commenced manufacturing cement practically in January 1922.

5. (*a*) Full capacity of the factory as at present equipped is 100,000 tons of cement per annum.

6. (*a*) The actual output of the factory since the commencement of manufacture is as follows:—

	Tons.
1922	28,308-10
1923	25,422-4

(*b*) No other products were manufactured.

7. Our factory is situated at Dwarka in Kathiawar, a seaport on the western coast.

(*a*) Yes.

(*b*) No; since coal is to be brought all the way from Bengal coalfields or foreign coal is to be imported.

(*c*) Yes.

(*d*) There is an abundant labour supply available at the factory. At times, however, it is feared that some of the labour might be attracted to agriculture during exceptionally good monsoons.

We think the following factors may ordinarily be regarded as the important ones in selecting the site for a cement factory:—

The close proximity of raw materials, good coal, abundant water supply, abundant supply of labour, good transportation facilities preferably by water failing which a first class railway, but certain circumstances may justify the selection of a site where some of the factors may not exist.

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* This stipulation was retracted; see oral evidence.

8. We do not manufacture different varieties of cement.

9. Portland Cement constitutes our entire output. It is manufactured to the British Standard Specification. We think the British Standard Specification requires certain revisions having regard to the climatic conditions in India. We are of opinion that the provision of neat tensile strength mentioned in the British Standard Specification should be omitted, and at the same time, compression tests should be added. The temperatures also require adjustment to Indian climatic conditions. We understand a Committee has been formed in this connection which is to investigate the whole question.

10. We consider that our cement is equal in quality and appearance to imported cement. We are afraid, however, our cement would not command the same prices in competitive markets as imported cement. The causes of this might be attributed to the following factors :—

> Foreign cement is usually packed in casks whereas ours is packed in bags and in some of the markets in India there is a prejudice against cement in bags as a general rule.

The most potent factor however, we think, is that it is the general prejudice of the engineering profession which is manned by Englishmen against the Indian product under their supposed belief that the English cement is the only cement best for the purpose.

II. Raw Materials.

11. The raw materials used by us in the manufacture of cement are the following :—

Limestone.
Alluvial clay.
Gypsum.

12. (*a*) Roughly 42,500 tons (present average output 25,000 tons).

(*b*) Roughly 170,000 tons.

13. 25 cwts. of limestone and 8 cwts. of clay are required to produce one ton of cement. The percentage of wastage is as follows :—

(*a*) *Nil.*
(*b*) 65 per cent.
(*c*) 1 per cent.

14. One ton and 13 cwts. of slurry is required to produce one ton of clinker. Our process of manufacture is the wet process and hence slurry only.

15. One ton of clinker will on an average produce one ton of cement, the loss during grinding is made up by the addition of gypsum.

16. The raw materials are drawn from local quarries from within an area of two miles with the exception of gypsum which is obtained from the Navanagar State which is situated from the factory at a distance 80 to 40 miles.

17. Limestone, one of the raw materials, is blasted by means of gunpowder, then loaded by hand into trucks, the trucks being drawn to factory site by means of steam locomotives.

The clay is dug up from the clay pits and transported in the same manner in which the limestone is brought to the factory.

18. We have to pay Royalty on gypsum only. As we have to pay a lump sum at the beginning of each year for a particular maximum quantity, the incidence per ton is varying. We have paid Royalty during the last two years at an average of 14 As. per ton.

19. The cost per ton delivered for raw materials for each year since the factory was established is as follows :—

	1922.			1923.		
	Rs.	A.	P.	Rs.	A.	P.
Stone	3	9	8	2	7	5
Clay	1	10	10	1	13	0¾
Gypsum	23	11	7	21	10	2

20. Regarding raw materials we have got concessions from the Baroda State. A copy of the relative lease is attached hereto. We think in the terms of the concessions of the lease with the Baroda State, there is nothing that we find unfavourable.

A summary of the lease in connection with gypsum is also attached hereto. The Royalty that we have to pay on each ton of gypsum we find rather heavy.

21. The raw materials are fairly constant in regard to quality. We do not notice and do not expect any deterioration in the same.

22. No.

23. Forty years. As years go on, the cost will of course increase owing to the fact that our quarries will be further from the factory site and the consequent haulage from a longer distance. In any case, the cost we expect will not be prohibitive.

24. No.

25. No.

26. No.

27. The question does not arise except in the case of gypsum where the rate of railway freight is a bit high.

III. LABOUR.

(a) *Quarry Labour.*

28. The number of labourers employed in stone quarries and clay pit are approximately 200 and 50 respectively.

We have usually been getting the raw materials quarried through contractors at a fixed rate; hence no particulars regarding wages during each year can be provided.

There has not been any increase in the rates of wages and they have fallen a bit during the second year as is seen by us from the lower rates offered by contractors.

29. No. Same reply as to question No. 7 (*d*).

30. The labour is mostly indigenous but sometimes a small portion happens to be imported one. In any case it is available in sufficient quantities.

31. No special training is required for this purpose.

(b) *Factory Labour.*

32. Expert supervision is required which at present involves the employment of skilled labour imported from abroad.

33. Four. The same number will suffice even if the factory will be working at full capacity.

34. No appreciable progress has been made in the substitution of Indian for imported expert labour. We anticipate that eventually the employment of imported labour will be unnecessary, but in any case that must be a little far off one due to the fact that the cement industry is only a recent one and is not at present in a developed condition. We consider that at least a period of five to ten years will be required to do away with foreign labour altogether by which time Indians will have completely acquired training in skilled work.

At present no facilities are open for Indian workmen to acquire training in skilled work, but we contemplate starting a scheme of training apprentices very shortly; but the unsettled condition of the trade has been one of the chief causes in depressing enthusiasm in this connection.

35. As we have not got the figures or the rates paid to workers in other countries, we are unable to give a comparison.

36. The total number of Indian workmen employed is varying according to necessity.

Due to short notice it is not possible to give average wages of different classes.

37. (*a*) 1922, Rs. 2,66,933-3-5. 1923, Rs. 2,07,480-11-1.

(*b*) Due to short time allowed, it is not possible to furnish average wages in different classes.

There has been no appreciable increase in the rates of wages between the two years though there is a distinct decline during the second year.

38. The Indian labour force is sufficient. It is mostly drawn from the vicinity of the factory, but a portion of it sometimes also comes from other parts of India, *viz.*, Sind and the Punjab. Please refer to answer to question No. 7 (*d*) also.

39. Indian labour improves upon training but in the present conditions it is much slower than western workmen not due to the inherent incapacity of the Indian workmen but is to be traced only to the much less industrial progress of the country which in a way is responsible for not begetting the higher aptitude for industrial work. As time goes on we are of opinion that the Indian labourer will be, if not better, equal to the western workman.

40. We have made arrangements for housing almost all our staff, and all skilled labour also. We have three bungalows, nine stone built quarters and forty huts built of corrugated sheets. Drinking water facilities, etc., are provided. Further we have kept a special dispensary with a medical man in charge of the same to look to the needs of the factory labour. As conditions permit, we contemplate doing everything possible in the direction of the promotion of the welfare of labour.

IV. Power including Fuel.

41. The power used in the factory is derived from electricity.

42. The source of the power is our own dynamoes worked by steam power. The cost per unit comes to 15·25 pies on an average.

43. Steam power is used only for the purpose of producing electricity which of course enables the factory to be driven entirely electrically. The fuel used is coal. Sometimes there is a difficuly on account of the shortage of wagons for bringing the coal from the Indian coalfields although the same is available in large quantities on the basis of pitsmouth deliveries.

44. About 15 cwts. of coal are required to produce one ton of cement which includes the fuel used for power production as well as for burning in kilns. We do not purchase any electrical current from outside sources.

45. Usually we are bringing fuel from the Bengal coalfields as well as from the Central Provinces coalfields. The fee on truck price varies from time to time. If at one time it might be Rs. 9 per ton f.o.r. pitsmouth, at another time it might be Rs. 8 or Rs. 7 per ton. The cost of transport from Bengal to our factory is roughly about Rs. 20 to Rs. 21 per ton, whereas from the Central Provinces it is only about Rs. 14 per ton. Fuel is not locally available.

46. No.

47. As coal is the only fuel used by us, the question does not arise.

V. Market.

48. It is not possible to ascertain the exact figure of the total Indian production of cement but from the information so far as is available to us we

believe that the Indian production of cement for each year since the factory was established is as follows :—

	Tons.
1922	147,615
1923	235,229

49. It is rather difficult to estimate the total Indian demand but we believe the same to be somewhere in the neighbourhood of 300,000 tons per annum.

50. We strongly believe that the Indian demand for cement will substantially increase in the near future for the following reasons :

Concrete construction is getting more popular day by day.

Knowledge is fast spreading about the various uses of cement tending to the general advantage of the building interests.

It has become substantially cheap as compared with the heavy prices during the war and pre-war periods and initial period of post-war time.

Dock construction is going on in several places and ports are being developed for which of course cement is essential.

And generally, as the country progresses industrially, the uses of cement in various ways will be recognised and the demand will necessarily increase.

51. Bombay, Karachi, Kathiawar and generally on the coastline.

52. The question does not arise as we are situated at a port.

53. We consider that the export of cement from India to foreign countries is very probable in the near future if the industry is properly encouraged. The countries to which the exports could be made would probably be Mesopotamia, Persian Gulf Ports, South and East Africa, Ceylon and Singapore.

We believe that India will be able to export nearly a lakh to a lakh and a half tons unless the whole output is absorbed by the country before which of course some years will elapse.

54. (*a*) Partly yes.
(*b*) No.
(*c*) Partly yes.

54. (*i*) The question does not arise.

(*ii*)

1922.	Prices realised.	1923.	Prices realised.
Government about 4,425 tons.	Average rate per ton Rs. 79-0	About 5,100 tons.	Rs. 65-0-0 per ton pending adjustment.
Public bodies about 2,900 tons.	Do.	About 3,000 tons.	Do.

The last part of the question does not arise.

VI. Foreign Competition.

55. Foreign countries from which the competition in the Indian market is keenest are the United Kingdom and to a certain extent Austria, Belgium, China and Japan.

56. Competition is keenest in respect of Portland Cement.

57. (*i*) (*a*) In 1912 Rs. 45 to Rs. 50 per ton.
In 1913 same as in 1912.
In 1914 Rs. 60 per ton.
(*b*) Rs. 125 to Rs. 225 per ton.
(*c*) 1921-22 Rs. 200 to Rs. 150.
1922-23 Rs. 150 to Rs. 75.
1923-24 Rs. 75 to Rs. 55.

(*ii*) The prices realised by us are as under :—

	Rs.
1922-23	77 per ton.
1923-24	62 per ton.

It is rather difficult to ascertain the f.o.b. prices of imported cement and it is much more difficult to determine the items of freight and insurance. Customs duty we are advised is 15 per cent. *ad valorem*.

The c.i.f. price so far as have known is 68*s*. 6*d*. per ton.

Customs duty 15 per cent. *ad valorem*.

Landing charges may be taken to be 5 to 7 per cent.

The difficulty stated above is due to the fact that usually the exporters and the shipping companies collude together with the result that the information regarding freight paid is practically hidden from the knowledge of the public.

58. We are unable to say from what source the information is obtainable as to the prices at which imported cement enters the country though the importers may offer quotations to any customer on the basis of c.i.f. price or *ex*-docks or *ex*-godown or delivery as the case may be.

The latter part of the question does not arise.

59. We believe that the quotations in the Trade Journals are fairly in accord with the prices at which transactions actually take place. The quotations given in the Trade Journals do not as a rule affect the terms on which we ourselves are doing business. We believe the prices at which cement is actually exported are appreciably below the home prices in the country of production.

60. We have reasons to suppose that the prices at which foreign producers sell for export to India are not necessarily remunerative but they are selling sometimes at a very small margin of profit to the producer with the deliberate idea of capturing the Indian market and sometimes below the cost of production. A perusal of the Directors' Report for the year 1923 of the Associated Portland Cement Manufacturers Limited will bear us out. The prices of foreign cement have gradually come down as the indigenous product has begun to appear in the market. In fact the foreign manufacturers are carefully watching the prices of Indian cement and then manipulating their prices.

61. Foreign competition is keenest in Calcutta, Rangoon, Bombay, Karachi, Madras, and in fact on all the coastal ports.

62. We are of opinion that the causes of the low prices at which foreign cement has entered India since the War may be the following :—

(*a*) General trade boom * and the consequent keen competition.

(*b*) Low cost of production in other countries due to their having established from a long time past and having had complete experience in the line.

(*c*) Cheap freight at which the material can be transported to long distances.

We have no reason to think that these causes will not be permanent since this industry in the foreign countries is firmly established.

63. The great disparity between the freights we have to pay for reaching our market in India when compared with the freights that have to be paid by the importer—of course the disparity is to the disadvantage of the Indian producer—can be seen from the fact that whereas an importer has to pay roughly about 18 to 20 shillings per ton from London to Bombay, Calcutta, Madras, Rangoon or Karachi, we have to pay say about Rs. 30 per ton from our factory say to Rangoon. This remark is equally applicable in the case of Madras, Calcutta and other ports also. These are so far as the sea-freights are concerned. The railway freights if the cargo is diverted through the interior by means of railways will necessarily be nearly twice this much figure and to other places possibly three to four times that much figure. Thus on the very face of it is a very great disadvantage under which the indigenous producer is labouring with the result that the markets at these places are usually captured by foreign exporters.

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* *Vide* oral evidence.

65. Rumour has it that sometimes continental cement is being re-exported from the United Kingdom as British manufacture but since the practice is a clandestine one, it is impossible to give evidence in this matter. The practice may be due to the lower cost of production in the Continent (or to depreciatory exchanges) when compared with that of the United Kingdom.

66. (*a*) Yes; since plant and machinery are not manufactured in India and since they were bought in 1920 when prices were very high.

(*b*) Yes; since expert labour is still to be trained in India.

(*c*) No.

(*d*) If fuel is included in raw materials then we are at a very great disadvantage in respect of this item.

We are at a disadvantage also in respect of gypsum which is one of the raw materials and which is to be brought over to our factory from a distance of about forty to fifty miles, but since the proportion of gypsum required for our purpose is not a large one, the disadvantage cannot be said to be in any way great.

(*e*) In the absence of the position of the foreign manufacturer, we cannot give a complete answer to this question. We, however, believe that our cost of raw materials is not higher when compared with the cost of the foreign manufacturer but regarding the consumable stores some of which are to be imported from foreign countries, we are unavoidably at a disadvantage. The result is that the stores are 50 per cent. dearer than in the United Kingdom.

(*f*) *Vide* answer to question 63.

(*g*) Yes.

(*h*) Yes; because in foreign countries plant and machinery are not to be imported whereas we have to import. Even so the spare parts and some of the consumable stores are to be imported by us whereas the foreign manufacturer is not required to do so.

(*i*) Yes; especially in these days.

67. The disadvantages in (*a*), the latter part of (*e*), and (*g*) we think would be permanent unless these materials would be manufactured in India which would necessarily take a pretty long time. The disadvantages in (*h*) are only a corollary to these three. We, however, believe that the disadvantages in (*b*) will be temporary. Unless Government takes special measures in regulating the freight, the disadvantages in (*f*) will be permanent.

68. (*a*) Some of the Indian manufacturers of cement are at a disadvantage owing to the distance between the sources of fuel and the areas where the raw materials are found.

(*b*) This fact would not much affect the Indian manufacturer in case the freights are regulated so as to be in equality with the foreign manufacturer, if not in a better position.

VII. EQUIPMENT.

69. This factory is sufficiently large for economic production.

70. The manufacture of cement requires the use of elaborate, heavy and expensive machinery.

71. The percentage of our total capital outlay on plant and machinery is 63.

72. This factory consists of, one Clay Wash Mill, Rough and Fine Stone Crushers, two Wet Compeb Mills, seven Slurry and two Correction Tanks, two Rotary Kilns 200 feet long by 9 feet diameter, two Coolers and Clinker Conveyors. All slurry is pumped by pneumatic pumps supplied with compressed air from three compressors. Two Dry Compeb Mills are erected for cement grinding fitted with emeric separators and screw conveyors. There is a stock house consisting of eight bins and two Bates Valve Packing Machines. The Power House consists of four Babcock & Wilcox Boilers fired by hand. There are three 1,000 K. W. Turbines. The water supply is obtained from our pumping station at Verwals which is at a distance of three miles. There is a

Waste Heat Boiler which is under erection and which therefore has not yet been put into operation.

The whole of the machinery was supplied by Messrs. The Allis Chalmers Manufacturing Company of the United States of America and put into operation regularly in 1922.

73. The manufacturers when they supplied this plant assured us that it was sufficiently up-to-date though we believe that due to the recent improvements that have been effected in cement making machinery, we shall be at a small disadvantage as compared with the foreign manufacturer who may thus get the better of us on account of this reason.

74. Yes.

75. The question does not arise.

76. Partly yes.

(*a*) Three Throw Slurry Pumps.

(*b*) Distilling Plant.

77. None.

VIII. CAPITAL ACCOUNT.

78. (*a*) Rs. 2,50,000-0-0.
(*b*) Rs. 34,285-11-0.
(*c*) Rs. 20,39,515-4-1.
(*d*) Rs. 49,44,867-11-2.
(*e*) Rs. 5,29,097-2-7.

79. The figures given in answer to question No. 78 represent the actual cost of the various assets. The latter half of the question does not arise.

The total of the depreciation fund is Rs. 40,000.

80. The sum actually set aside for depreciation since manufacture commenced is less than the sum which ought to have been set aside according to the suitable rates of depreciation.

81. We believe that the present day cost of a factory under the heads of Buildings and Plant and Machinery having the same output as ours might possibly be a little less for the obvious reason that there has been a general decline in prices. We are unable to give any detailed answers to this question at the present moment due to short notice. We believe, however, that the operating cost of a new factory would not make any very great difference with ours since this is a common factor affecting all at the same time.

82. In 1921 \$904,328·09 at an average exchange rate of 3·29.
\$136,572·24 at an average exchange rate of 3·60.

83. (*a*) Rs. 50,00,000.
(*b*) Rs. 50,00,000.
(*c*) Rs. 50,00,000.

Ordinary shares Rs. 30,00,000.

Preference shares Rs. 20,00,000.

There are no Deferred Shares.

84. The dividend payable on the First Preference Shares is 7½ per cent. per annum and on the Second Preference Shares 9 per cent. per annum, the extent of each set of Preference Share being Rs. 10,00,000. These shares are entitled to cumulative dividends. The First Preference Shares have become entitled to dividend from the year ended 31st March 1921, and the Second Preference Shares from 31st December 1922.

The dividends are in arrears.

85. The question does not arise.

86. (*a*) 1920 Paid-up share capital (Preference), Rs. 10,00,000.
Paid-up share capital (Ordinary), Rs. 10,00,000.

1921 Paid-up share capital (Preference), Rs. 10,00,000.
Paid-up share capital (Ordinary), Rs. 30,00,000.
1922 Paid-up share capital (Preference), Rs. 20,00,000.
Paid-up share capital (Ordinary), Rs. 30,00,000.
1923 Same as 1922.

(*b*) *Nil.*
(*c*) *Nil.*

87. The question does not arise.

88. Rs. 20,00,000 is the Debenture loan raised by the Company. The loan was issued at par, the rate of interest on an average being 7½ per cent. per annum. The period fixed for redemption for Rs. 10,00,000 is 1931, and for the remaining the period is varying which on the whole is prior to 1931.

No Debenture Sinking Fund has been established.

89. *Nil.*

90. We do not contemplate carrying out any very great replacements or extensions of the plant at the moment barring the two items mentioned in answer to question 76 (*b*). The approximate cost will be Rs. 1,00,000.

IX. COST OF PRODUCTION.

91. The two forms are filled in and attached hereto.

92. We have reason to believe that the works cost was increased in the first year as also in the second year owing to the fact that the factory was working at less than its full capacity. The main items affected are—

Salaries, wages, stores, whose incidence on cost would have been much less if the full output was obtained.

If the full output had been obtained, the cost would have probably come down by at least 10 per cent.

93. We regret that the cost for the year 1922 was rather abnormally high due to the fact that the price at which coal used that year was purchased was at a very abnormal figure. The difference between the market price of that year of coal and of the price at which it was landed at our works formerly was Rs. 13 per ton. In accordance with the previous agreements entered into in this connection (and due to the sudden fall in prices subsequently) we were at a very heavy loss. This kicked up the cost in 1922 and for some period in 1923.

The following is the estimate of the works cost for some future year on the assumption that conditions are normal and an output is obtained equivalent to the full capacity of the Plant:—

(*a*) Rs. 40 to Rs. 45 per ton.

94. No.
95. No.

(*b*) OVERHEAD CHARGES.

(*i*) *Depreciation.*

96. The following are the rates of depreciation allowed by the Income Tax Office:—

Buildings 2½ per cent.
Plant and machinery 7½ per cent.

We do not think that the rates allowed by the Income-Tax Authorities are suitable in calculating the cost of production of our cement. We would suggest 10 per cent. on machinery, the reasons being as follows:—

(*a*) The wear and tear of machinery is rather very intense when compared with the machinery used for other purposes since this sort of machinery has to deal with heavy materials such as stone, etc., which have to be crushed and ground down.

(*b*) and so far as we are concerned, the saltish climate plays a certain part in shortening the life of the machinery.

97. The sum required annually for depreciation at Income-tax rates on the total block account is as follows:—

	Rs. (*a*)	A.	P.	Rs. (*b*)	A.	P.
Buildings	50,987	8	0	49,710	0	0
Plant and machinery in continuous operation	3,70,860	0	0	3,43,057	0	0
Other assets	31,831	0	0	29,137	0	0
TOTAL .	4,53,678	8	0	4,21,904	0	0

(*c*) The question does not arise.

If the rates we would suggest be adopted, the following sum would be required annually for depreciation at those rates:—

Plant and machinery in continuous operation, Rs. 4,94,258.

98. The question cannot be precisely answered at the present stage as the figure cannot be fixed as per answer given to question No. 81.

99. The incidence per ton of cement when the depreciation is written off according to the various methods given in question No. 97 will be as follows:—

	According to the rates allowed by the Income-tax authorities.	According to the rates suggested by us.
(*a*)	Rs. 18-2-4 (25,000 tons)	Rs. 23-1-4 (25,000 tons)
(*b*)	Rs. 4-8-7	Rs. 5-12-4

(*ii*) *Working Capital.*

100. The working capital which the Company requires is as follows:—

(*i*) Rs. 19,00,000.

(*ii*) Rs. 65,00,000.

101. The Company is not able to provide all the working capital it requires from share and debenture capital and it has therefore been found necessary to borrow additional capital for the purpose.

102. The additional working capital has been borrowed at an average rate of interest of 8½ per cent. per annum to the extent of Rs. 26,00,000.

103. Taking on an average the monthly works cost to be Rs. 1,00,000, it is roughly 19 times the working capital, namely Rs. 19,00,000.

104. The average value of the stocks of the finished goods held by the Company is normally between Rs. 3 to 4 lakhs. On an average the period that elapses between production and payment is three to four months, though it sometimes runs from seven to eight months but in rare cases.

105. The Company does find it necessary to hold large stocks of coal but not necessarily of raw materials. The acute shortage of wagon supply makes it incumbent upon the Company to attempt to stock large quantities of coal with consequent lock up of capital and deterioration of quality failing which they have to take the risk of the stoppage of the works all of a sudden. The average value of the stocks held during 1922 was Rs. 7,50,000 approximately.

(*iii*) *Agents' Commission and Head Office Expenses.*

106. The Company has a Head Office other than the office of the local management at the factory. It is under the control of a firm of Managing Agents.

107. (*i*) The annual amount of the Head Office expenses is about Rs. 71,000.

(*ii*) The Agents' commission cannot be precisely stated due to the reason given in the answer to the next following question.

108. The amount of Agents' commission is 10 per cent. on the nett profits of the Company.

109. (*a*) Expenses per ton of cement according to the present output is Rs. 2-13-5, and according to the output equivalent to the full capacity of the plant would possibly be Re. 1-2-9.

(*b*) The question is not precisely answerable in view of the reply given to the next preceding question.

X. MANUFACTURER'S PROFITS.

110. We consider a rate of 8 per cent. dividend would be a fair return on ordinary shares. We have got no deferred shares.

111. We are of opinion that if new capital is to be raised it would be possibly necessary to offer a rate of at least 8 to 9 per cent. on Preference Shares and something like 7 to 8 per cent. on Debentures would be necessary on the assumption that profits would necessarily be made in the industry which would show a substantial margin after providing for interest on the existing shares and debentures. On looking to the present position of the industry, however, we are very much afraid whether any capital would be forthcoming if rates even higher than those mentioned by us are offered.

112. In the present unsettled condition of the industry it is hard to forecast without fear of being falsified whether there would be any return possible.

113. (*a*) The incidence per ton of cement of the fair return on the ordinary shares would be according to the present output Rs. 9 to Rs. 9-7-0 and according to the full capacity of the plant would be Rs. 2-6-4.

(*b*) Rs. 6-9-7 according to present output and Re. 1-10-5 according to full capacity.

(*c*) Rs. 5-14-4 according to the present output and Re. 1-7-7 according to full capacity.

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XI. CLAIM FOR PROTECTION.

114. A. We are strongly of opinion that the three conditions mentioned in paragraph No. 97 of the Report of the Fiscal Commission are completely satisfied in respect of our industry.

It goes without saying and can be proved that the industry possesses natural advantages such as an abundant supply of raw materials, sufficient supply of labour and also a pretty large home market. In many places all over India we can find the raw materials necessary for this industry in abundance. The supply of labour also is both adequate and sufficient as is recognised on all hands and as we see also that the surplus labour is required to emigrate. In some places, power can be had cheap, but in other places power will be a bit dear due to the fact that it has to be generated locally, there being no other source from which it can be bought. There is a home market also sufficient to keep up the industry running *provided care is taken to reserve the market for the indigenous industry.*

B. We consider that without the help of protection the industry is not likely to develop in the manner in which everyone would desire it to be developed. Development does not necessarily mean only the multiplication of works. Development to be truly so called must prepare the industry to stand on its own legs. In that sense we venture to say that, without the help of protection, the industry would not develop to such an extent as is desirable in the interests of the country.

This industry is only of recent growth. It began in India in 1914 when there were only two or three works. After the war however new works came into existence one after another with the result that at present we find a pretty large number of factories working. In fact it is a mere beginning of this industry in India. To take the metaphor of "Nurse the baby, protect the child, and free the adult" cited by Lala Harikishen Lal in his evidence before the Fiscal Commission which appealed to the Commission in its entirety as can be seen from their repeated allusions thereto, the industry, if not strictly a baby, may be very well supposed to be in the condition of a child and as such requires protection essentially. A decade is nothing in the history of a country for the development of an industry if the development is to be on a sound basis. At least 15 to 20 years is the period necessary.

It may be argued that as there are a number of works of cement, the industry may be said to be developed. The very rapidity with which they have come into existence may bring about their disappearance, and if this be the case, the interests of the country will be seriously affected. It is a commonplace of history that in protectionist countries, especially in Germany and United States, the tariffs were raised to almost a very high level to protect the indigenous industries with the result which we now see, that these two countries have topped the list in industrial development. In fact in France they went a step further and granted even a legal prohibition in respect of imports of certain manufactures during the middle of the 19th century. This was all done in the interests of the indigenous manufacturer. Our present position is such that unless the industry is protected, it might not only fail in itself but will cause a general apprehension in the minds of the already shy investing public about the worst condition of this industry. The result will be that no person or firm would undertake to invest capital in this industry for a number of years to come until the confidence that will be shaken in case the apprehensions entertained come out true, is restored. This will necessarily take a pretty long time. It will at the same time mean a serious clog to the already slow progress of industrial development in this country which as compared with that of the foreign countries is at its lowest.

It will thus be seen that this condition is also satisfied.

C. When a sufficient breathing space is allowed by which time the industry would be able to substantially plant itself in the country just like the foreign similar concerns in those countries, we have no doubt that the industry must be finally able to face world competition without protection. This we believe would take 15 to 20 years when there will be no need of protection. Much before that time the expert labour which has now to be imported from abroad at fanciful rates of wages will be available in the country both in quantity and quality. The cost also will come down appreciably when a considerable experience is gained from year to year in respect of this new industry.

All these three conditions, therefore, are in our opinion fully satisfied in the case of this industry.

115. A. The industry is certainly one in which the conditions of large scale production can be achieved and an increasing output would mean an increasing economy of production.

B. As matters stand at present even, we think that the whole needs of the country would be supplied by the home production and something more than that.

116. We consider that the cement industry is almost on the same footing as the steel industry. We are afraid that this aspect of the question was not placed before the Fiscal Commission in regard to this industry. If possibly this aspect was presented to them, we believe they would have explicitly stated in their report that the steel industry and the cement industry are to be placed in the same category. Just as steel is necessary for national defence, cement is equally necessary. As a matter of fact the whole output

or the Indian works during the war was requisitioned by the Government for military purposes. For the purpose of constructing fortifications, foundation structures for planting guns and sometimes for building up bridges and a number of other things, cement is extremely necessary for modern warfare. It is a key industry and must be therefore protected with as much great care as should be taken in the preservation of the steel industry.

The Fiscal Commission in paragraph No. 106 of their report have discussed the treatment of industries of national importance or of special military value and affirmed without hesitation the principle—

> "That any industry which is essential for national defence and for which the conditions in India are not unfavourable should if necessary be adequately protected irrespective of the general conditions (*vide* the three conditions in paragraph No. 97) which we have laid down for the protection of industries."

It will thus be seen that even though the second condition laid down by the Fiscal Commission in paragraph No. 97 of their report does not on a superficial view appear to be satisfied, this statement in paragraph No. 106 must convince anybody that the real intention of the Fiscal Commission was to give genuine protection to all industries of military importance irrespective of other considerations. In fact the very characteristic of its being important on military grounds should be the main criterion in determining the fitness or otherwise of an industry for being granted protection. Thus it will be seen that the industry is of importance on national grounds as well.

The case therefore for protection of this industry is overwhelmingly strong.

117. Development of industries has been now recognised to be an integral part of the fiscal policy of the Government of India. Along with this, urbanisation of rural areas is going on. There are 700,000 villages in India and if urbanisation is going on as it is at present going on—on a pretty large scale—the tastes of the people as a whole will necessarily undergo a marvellous change. The people in the villages at present are using for building purposes materials of a crude type such as mud, chunam, etc., and the more the process of urbanisation is carried on, the more they will think of having cement for the purpose. The demand will naturally grow and if the industry is allowed by the Government to survive the bad times which are at present threatening it, it will do a great service to the country and to the people as well by being in a position to satisfy the needs of the people.

118. At this time we would urge that protective duties should be imposed on imported "Portland Cement" only which competes very keenly with the indigenous product. The imports of other kinds of cement are insignificant and possibly it will take some time before the Indian cement industry would be able to manufacture other kinds of cement in as efficient a manner as the foreign manufacturer does.

119. A. Powers must be vested in the proper authorities to raise the tariffs immediately when imports at cheap rates take place due to depreciated exchanges so that the protection given may be effective.

B. By bringing pressure on the steamship companies to materially reduce their rates of freight on cement exports and by giving bounties if possible on every ton exported to foreign countries.

C. By asking Government to make all their purchases of cement from the indigenous manufacturers (the Government have imported in 1923-24 something like 11,685 tons).

120. (*a*) The amount of protection the industry receives at present is 15 per cent. *ad valorem*.

This amount of protection which the industry receives at present is altogether neutralised due to the heavy freights the indigenous industry has to pay in reaching the internal markets only. In fact this does not give any sort of protection altogether.

121. We would consider that at least Rs. 25 per ton specific duty would be a tolerably adequate protection so as to be an effective guarantee against foreign imports and reserve the whole of the home market for the indigenous industry.

122. We believe that it is a fact that the productive capacity of the Indian cement factories exceeds the total consumption of the country and this is the very reason why we insist upon the reservation of the home market for the indigenous product. When the country is able to produce its own requirements and more, there is no reason why foreign imports should take place. Morever it is to the advantage of the country that so much of money which is going out by way of payments for imports will be retained in the country.

Further due to this very fact again internal competition is developed with the inevitable result that the consumer does not stand to lose. The burden of argument that is usually advanced against granting protection is that the interests of the consumer are jeopardized. These are completely safeguarded due to the internal competition. Therefore the giving of protection against the foreign imports will save the country as a whole the drain of heavy amounts which are going out of India by way of payments for these imports without at the same time any detriment to the country.

It may however be argued that if protection would be granted to the industry, a combine may be entered into by the indigenous manufacturers to exploit the consumer. Having regard to the present situation we have no doubt in holding that such a possibility will be far from being realized and even supposing that this would happen the Government can at once pass legislation to counter the movement of a combine if of course it tends to the detriment of the consumer. The important thing to be seen is that the consumer does not stand to lose, neither the tax-payer.

FORM I.

	1922.			1923.		
	Rs.	A.	P.	Rs.	A.	P.
Raw materials	2,39,139	15	11	1,04,205	4	0
Labour	2,47,257	6	3	1,77,034	12	9
Power and fuel	12,15,776	13	7	6,73,273	11	4
Repairs	35,658	4	11	52,931	7	2
General supervision	70,669	0	4	73,826	13	5
Miscellaneous	4,676	5	11	7,237	14	2
Stores and oil	1,37,508	7	8	1,04,057	7	5
Pocking including bags	2,09,306	12	9	3,10,925	4	11
TOTAL	21,59,993	3	4	15,03,492	11	9

Total production for the years is as under:—

	1922.		1923.	
	Tons.	Cwts.	Tons.	Cwts.
Clinker in stock	11,917	8	2,364	6
Finished goods (Cement)	28,308	17	25,422	4
TOTAL	40,226	5	27,786	10
Cement packed	24,868	5	27,994	18

FORM II.

We regret that the details of the several items as desired in this form cannot be provided. We, however, give cost per ton of cement under the following heads, so far as it can be approximately ascertained. The figures therefore cannot be taken to be accurate to the letter.

1922.

	Quantity.		Cost per ton.		
	Tons.	Cwts.	Rs.	A.	P.
Clinker produced	33,379	0	54	3	2
Cement ground	28,308	17	5	0	0
Cement packed	24,868	5	8	6	8
			67	9	10

1923.

	Quantity.		Cost per ton.		
	Tons.	Cwts.	Rs.	A.	P.
Clinker produced	20,009	0	51	0	0
Cement ground	25,422	0	6	12	3½
Cement packed	27,994	0	11	1	8½
			68	14	0

N.B.—The cost during 1923 should have been really less than in 1922 but simply due to the higher cost of sacks for packing the cost has gone high, Sacks alone cost Rs. 10 per ton in 1923 whereas in 1922 they cost only about Rs. 6-4.

An AGREEMENT made the sixth day of April One thousand and nine hundred and eighteen between Manubhai N. Mehta, Esq., M.A., LL.B., Dewan, on behalf of the Government of His Highness the Maharaja Gaekwad of Baroda, hereinafter called the Lessor, of the one part, and Purshotam Vishram Mawjee, of Bombay, Bhatia Hindu, hereinafter called the Lessee (which expression shall wherever it occurs in these presents mean and include the said Purshotam Vishram Mawjee his heirs executors administrators and assigns), of the other part. WHEREAS the Lessee made certain proposals to the Lessor for grant of land in the Okhamandal Division of the Lessor's State as also of certain rights privileges and concessions in connection with the business of cement and kindred industries proposed to be started by the Lessee in the said Okhamandal Division: AND WHEREAS the Lessor has been pleased to accept the said proposals with certain modifications: AND WHEREAS the Lessee has agreed to the said modifications: AND WHEREAS the parties are now desirous that a proper agreement embodying the terms and conditions of the grant to the Lessee of land, etc., in the said Okhamandal Division and of the rights concessions and privileges in connection with the business of cement and kindred industries in the said Okhamandal Division proposed to be started, established and conducted by the Lessee as aforesaid be made and entered into by and between the parties: NOW THIS AGREEMENT WITNESSETH that it is agreed by and between the Lessor and the Lessee as follows, that is to say:—

1. The Lessor shall at any time hereafter grant convey and demise free of any rent or other charges whatever save and except the usual assessment in respect thereof but subject to the payment of royalty as hereinafter provided to and unto the Lessee such land or lands in the aggregate exceeding in extent 100 bighas in the said Okhamandal Division at such site or sites as might hereafter from time to time be required and fixed by the Lessee for the purpose of and in connection with the business of cement and

kindred industries proposed to be started by the Lessee in the said Okhamandal Division and for the purpose or purposes of erecting factory or factories, building or buildings, premises for residential or other purposes and other structures in connection with the Lessee's said business TO HAVE AND TO HOLD the same to and unto the Lessee for a term or period of forty years from the date of the starting by the Lessee of the working of the Cement Factory of the Lessee: PROVIDED HOWEVER that in the event of there being no Government land available at or about the proposed site or sites where land or lands is/are or be required by the Lessee as aforesaid, the Lessor shall acquire for the Lessee but at his expense such land or lands as may from time to time be acquired by the Lessee PROVIDED ALSO that the Lessee shall not use the land thus granted, conveyed and demised or acquired except for the purposes for which such grant, conveyance, demise or acquisition is intended and if at any time hereafter the Lessee ceases to work and is desirous of transferring any of such land or lands or any portion or portions thereout the Lessor shall have in any such case the option either of allowing the Lessee to transfer such land or lands or portion or portions thereout as proposed or desired by him or of getting back the land for himself but in this last mentioned case the Lessor shall refund to the Lessee the compensation amount, if any, that might have been paid by the Lessee for the acquisition of such land or lands portion or portions if the same had to be and was acquired by the Lessor for the Lessee as hereinabove provided.

2. The Lessee hereby agrees that he shall start cement works in Okhamandal aforesaid within two years from the determination of the present European war.

3. The Lessee shall be liable to pay and pay income-tax and Municipal duties as also the import and export duties payable under the British Indian Tariff Act applicable to the Okha Port or Ports, but shall not be liable to pay any other import or export duty at these Port or Ports.

4. The Lessor shall construct and maintain at his own expense roads connecting the exterior precincts of the factory to the principal Roads.

5. The Lessor shall further demise free of charge or rent or any payment therefor for the aforesaid term to the Lessee also lands creeks beaches and other sites with the deposits therein thereunder and thereon in the said Okhamandal Division for the purpose of digging quarrying, etc., stone lime, clay, sand, etc., required by the Lessee in connection with the business of cement and kindred industries aforesaid PROVIDED HOWEVER that the Lessor shall not be bound to demise any land or lands if the same are required by the Lessor himself for any other purpose AND PROVIDED ALSO that the Lessor shall not be bound to demise to the Lessee any land which is not unculturable waste land and which is not in the occupation of any one.

6. The Lessee shall give to the State royalty at 3 annas per ton of cement manufactured or produced by the Lessee in the said Okhamandal Division for the first five years after the commencement of working of the Lessee's cement factory and at 4 annas for the five years thereafter and at 5 annas thereafter during the rest of the aforesaid term or period of 40 years PROVIDED HOWEVER that in the event of the Lessee's ceasing to do the cement business entirely continuously for a period of 5 years at any time after the starting of the factory for the cement manufacture except when compelled to do so by an Act of State or Act of Enemy or Act of God or other unavoidable accident beyond the control of the Lessee, the Lessor shall be entitled to determine the monopoly hereby given to the Lessee PROVIDED HOWEVER that in the event of the cessation of the Lessee's cement business continuously for 5 years except as aforesaid the Lessee shall nevertheless be liable to pay the State royalty at two annas per ton computed on the quantity of cement manufactured by the Lessee during the year immediately preceding such cessation. The royalty in this clause mentioned shall be payable annually.

7. The Lessor shall not allow directly or indirectly manufacture production or preparation of cement and kindred goods by any person or persons or by any body or body corporate or otherwise, association or associations company or companies or any one whomsoever other than the Lessee his agents or assigns in the said Okhamandal Division of the State during the aforesaid term or period of forty years.

8. The Lessee shall supply to the Lessor for the State works such quantity of cement manufactured or produced by the Lessee in the said Okhamandal Division as the Lessee can spare after meeting the contracts then pending at the then market price thereof less 10 per cent. after deducting or making allowance for the freight charges.

9. The Lessee shall be entitled to transfer assign or give the benefit of this agreement or any part thereof and of the monopoly, concession, rights and privileges and the Lease as also of the grant demise and transfer of land, creeks, beaches and other sites with the deposits therein, thereunder and thereon or any part thereof to any person firm syndicate or corporation PROVIDED HOWEVER that before the Lessee shall so transfer assign or give the benefit of this agreement, etc., as aforesaid he shall obtain the Lessor's sanction thereto.

10. The Lessee shall within twelve months from the determination of the present European war fix the first building site or sites quarry or quarries creek or creeks to be granted conveyed and demised to him as hereinabove provided.

11. The Lessor shall be entitled but for the purpose merely of ascertaining the amount of royalty payable to him to inspect the Lessee's books showing the quantity of cement manufactured or produced by the Lessee and the Lessor shall also be similarly entitled but for the purposes merely of clause 8 hereinabove and of ascertaining the pending contracts of the Lessee as in the said clause eight hereinabove contemplated, the books of the Lessee showing such contracts.

IN WITNESS WHEREOF the parties hereto have hereunto set their respective hands and seals the day and year first above written.

Signed sealed and delivered by the withinnamed Manubhai N. Mehta in the presence of—
MANILAL M. NANAVATI.
S. M. PAGAR.

MANUBHAI N. MEHTA.

Signed sealed and delivered by the withinnamed Purshotam Vishram Mawjee in the presence of—
PARSHURAM MADHORAM VIN.
S. M. PAGAR.

PURSHOTAM VISHRAM MAWJEE.

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LEASE OF MINING GYPSUM.

(NOTE.—The original lease dated the 8th January 1922 is in Gujarati. The parties to the lease are the Jam Saheb of Navanagar State and the Dwarka Cement Company, Limited. The principal terms of the agreement are given below.)

1. Agreement is for a period of five years operating from 1st January 1921 to 31st December 1925.

2. Royalty to be paid to the State for the first two years is Rs. 1,000 per annum for which the maximum quantity of gypsum to be removed during each year is 3,440 cartloads (each of 20 maunds, each maund being roughly equal to 1 qr.). If any quantity in excess of this figure is removed, it is to be paid for at the rate of Rs. 1-4 per cartload.

3. Royalty for the next three years is to be paid at the rate of Rs. 1,750 per annum for which a maximum quantity of 1,400 cartloads can be removed during each of these three years and if any quantity in excess of this figure is removed during each of these three years, such quantity is to be paid for at the rate of Rs. 1-4 per cartload.

4. The State reserves to itself the right of removing any quantity of gypsum for its own consumption.

Statement V.—Replies to questionnaire (1) (b), from the Dwarka Cement Co., Ld., Bombay.

(Letter, dated 23rd January 1925.)

* * * * * *

With reference to paragraph No. 3 of your letter of the 24th Nov. last we furnish below the necessary figures:—

	OUTPUT	REMARKS.
First 6 months of 1924 . . .	Tons 12,118 15	Factory was not working for one month and during other months partially.
First 6 months of 1923 . . .	Tons 16,903 0	Factory was not working for two months and during other months partially.

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With reference to paragraph No. 4 of your letter, we have to say the rough estimate of packing in barrels per ton would come to about Rs. 18. This figure which we are supplying you is based on a question received from Messrs. Spedding's Saw Mills, Jhelum. The Railway freight alone from Jhelum to Bombay (and to Dwarka also it may also be the same) is we are told Re. 0-7-10 per barrel and they have quoted us the cost of the material at Rs. 2-6-0 *ex* their Mills. It should be noted the staves and other materials which they send will have to be made up into a barrel subsequently at the Factory, the cost of which is not yet ascertained, but on the whole we believe that the cost will be approximately the figure we have quoted above unless we receive better quotations from elsewhere.

Statement V.—Further supplementary information submitted by the Dwarka Cement Company, Limited, dated 2nd February 1925.

We have the honour to acknowledge the receipt of your telegram of the 31st ultimo as per copy enclosed, and in reply as desired by you, we have wired you to-day as confirmed herewith.

During the calendar year 1924, our factory was almost closed for the whole period barring of course, the first three or four months when it was working off and on, and when allowance is made for the days of suspension during these months, the operations may be confined practically to a duration of three months only. During the fifth month of the year, operations were going on only for about six days and it may well be, therefore, ignored.

It is evident, therefore, that there was no output during the latter nearly 8 months of the year and the position of the despatches also can very well be summarised therefrom.*

We are, therefore, of opinion that the figures if at all supplied for the year 1924 will not be in any way a fair guide for your purpose and hence we do not think it advisable to supply you the same. In case, however, you insist upon the figures being supplied, for the months when the operations were in progress, we have no objection. We may also mention here that our financial year coincides with calendar year.

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* Total despatches of cement during calendar year 1924 were subsequently stated to be 13,488½ tons.

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THE DWARKA CEMENT COMPANY.

B.—ORAL.

Oral evidence of Mr. P. V. ACHARYA recorded at Simla on Monday, July 7th, 1924.

I. INTRODUCTORY.

President.—Will you please tell us what your position is in the Dwarka Cement Company?

Mr. Acharya.—I am Secretary to the Dwarka Cement Company, and am in charge of the Bombay office subject to the control of the Managing Agents.

President.—In your answer to question 7 you mention certain factors which have to be taken into consideration in selecting the site for a cement factory. Which do you regard as the most important of these?

Mr. Acharya.—I think that close proximity of raw materials is the most important.

President.—That is to say, unless the factory is close to the raw materials, it would be very difficult to carry on the manufacture of cement?

Mr. Acharya.—I think so. If of course coal is also very near, it is far better.

President.—What we have noticed is that, on the whole, manufacturers in India prefer to be near their raw materials, even though they are at a good distance from the coalfields.

Mr. Acharya.—Yes.

President.—You say in answer to question 10 " The most potent factor, however, we think, is that the general prejudice of the engineering profession which is manned by Englishmen against the Indian product under their supposed belief that the English cement is the only cement best for the purpose." I know quite well what you refer to, and there is no question about it that Englishmen, who are very often conservative people, tend to adhere to the sources of supply they are accustomed to. But I think it is something more than a prejudice. Does not British trade owe a good deal of its success to the fact, that the manufacturers turn out good stuff?

Mr. Acharya.—Stuff or the packing you mean?

President.—I am not referring specially to cement just now. The tendency you refer to is not confined to cement by any manner of means. I have come across it myself in other trades. What I should like to put to you is that the tendency is more than a prejudice, and that it has definite grounds underlying it.

Mr. Acharya.—It is more than a prejudice in this way. Even though the Indian cement is better or at least equal to the English cement in quality, yet these Englishmen go in for the foreign cement because they want to patronise their own industry.

President.—I don't say that that element is absent. You may be right to some extent about that, but I think that you are not making sufficient allowance for other factors.

Mr. Acharya.—Do you mean from the point of view of quality?

President.—No. What I mean to say is that I think that you are overvaluing the racial factor altogether. However you are entitled to your own opinion.

Mr. Acharya.—The day before yesterday I met an engineer. He himself told me that when Government gave contracts for doing cement work, they stipulated a condition that the cement that should be used must be English cement. I cannot of course prove this allegation.

President.—Have you ever been in communication with the Indian Stores Department? Do you know any of their officers?

Mr. Acharya.—Oh, yes.

President.—Have you ever drawn their attention to this point?

Mr. Acharya.—No, I have not drawn their attention.

President.—Why not?

Mr. Acharya.—We thought that the whole case would be investigated by the Tariff Board.

President.—If you believe there are orders by Government giving preference to British cement, you are under a misapprehension, and if you read the new Stores Rules, this will be apparent.

Mr. Acharya.—We will communicate that to the Stores Department.

President.—It is a mistake to attach exaggerated importance to casual statements. The preference for English goods is largely based on the fact that, on the whole, English manufacturers make a point of turning out high class goods, and they have earned a good reputation. The engineer very naturally says "I might try new sources of supply, but I have always been able to get stuff that I could thoroughly rely on from the firm I am accustomed to, and the best thing is to go to them." But, however things may be with engineers in private employment, engineers in Government service come under the rules and are bound by them.

Mr. Acharya.—Private engineers care for their money. Take for instance the case of Messrs. J. C. Gammon, Ltd. They are great consumers of cement and they are carrying out great concrete works. They are always taking Indian cement. I am citing only one instance.

President.—Can you bring to our notice any concrete instance in which a Government engineer has bought British cement when he could get Indian cement at a lower price?

Mr. Acharya.—I have nothing concrete to say.

President.—If you do not know of any concrete case, are you justified in making the statement that you have made?

Mr. Acharya.—Why not? We are justified I think. So far as the allegation is concerned, we cannot prove such allegations by regular evidence. It will be difficult to prove.

President.—Do you think that you are entitled to assert that a certain state of things exists, although you cannot give us any evidence?

Mr. Acharya.—We cannot give any evidence because these practices cannot be openly resorted to. That is why I say that this statement may be taken with allowance.

Mr. Ginwala.—Do you suggest that the European engineer tells the contractor secretly that, if he is to obtain the contract, he must use English cement. Is that what you mean? Otherwise, you ought to be able to prove it.

Mr. Acharya.—I think that it amounts to that much.

Mr. Ginwala.—Has the English engineer any particular interest in this arrangement?

Mr. Acharya.—No. The particular interest is to patronise his own people because this sort of thing has been found by us in several other cases.

President.—Has it been found by you?

Mr. Acharya.—Patronising their own people not in respect of cement necessarily. I can give you one more instance. When we had an American in charge of the works at Dwarka, he would always recommend to us that an American was needed for the purpose.

President.—That does not seem to me to be relevant.

Mr. Ginwala.—Don't you do the same thing? Suppose you had a choice to make, would you not say " I would have my own countryman."

Mr. Acharya.—Certainly I won't be justified in saying that, unless the man is sufficiently capable. Capability is the question.

Mr. Ginwala.—If you are to decide everything on the question of capability, our countrymen will have a very poor chance indeed in many cases.

Mr. Acharya.—In that case, they must suffer.

President.—That is hardly relevant. I think that, if you are unable to give us any definite evidence in support of what you say, you were not justified in making the statement that you have made. I can assure you that, if you get into communication with the officers of the Indian Stores Department, you will find that they are most anxious to do whatever lies in their power. They are doing everything they can from day to day in order to secure that whenever possible the orders should be placed in India. That is all I have got to ask about the first section.

Mr. Ginwala.—On this point of prejudice: what would you do? Supposing you are constructing a building worth Rs. 50 lakhs personally and there is some article (not necessarily cement) which is of a well known brand and for a hundred years manufactured abroad, and there is quite a new article manufactured for a year or two in this country, and the difference in price to you was perhaps a few thousands on the whole, what would you use?

Mr. Acharya.—I have to use my own discretion.

Mr. Ginwala.—How would you use your discretion? You are assured by people who claim to know all about it that your building would be all right. There was not even a reasonable doubt about it, but you had that doubt in your own mind. Well then, what would you do? Would you rather save the few thousand rupees, or would you not, and take the article of which you were quite assured?

Mr. Acharya.—If I can make sure of the other article I will buy it.

Mr. Ginwala.—You cannot make sure of the local article by long experience. The other thing has been proved over and over again. The question is that the building may fall down or it may not last as long as you would like it, if the article proved unsatisfactory. Would you save a few thousand rupees in such circumstances?

Mr. Acharya.—I shall explain the position. Take for instance cement.

Mr. Ginwala.—Take something else. What will you do in such a case?

Mr. Acharya.—If I cannot get any reasonable assurance from people who ought to know about these things, I will go in for the foreign article, but seeing that the locally made article is cheaper I will take pains to ascertain whether it is not as good as the local article.

Mr. Ginwala.—That is to say, you will be prepared to take the word of the manufacturer?

Mr. Acharya.—No. I will take other things into consideration.

Mr. Ginwala.—The experimental test is one thing and actual experience is quite another. You may be able to prove on paper that a building will last another fifty years, but this is quite a different thing from a building erected out of another cement which has lasted fifty years, so that human nature has got some reason to doubt the quality of the more recent material. Is not that so? May not that account for the preference of foreign cement to some extent, rather than prejudice?

Mr. Acharya.—To a certain extent it may. But cement being a chemical composition, it can be subjected to special tests and seen whether it complies with the British Standard Specification or not.

Mr. Ginwala.—It is true But you cannot blame the man for saying " I know of no building which has been in existence for 50 years built out of your cement." A man may say that.

Mr. Acharya.—The specification is there and the particular cement he takes may be tested. He may see whether the tests are all right and then proceed to buy. That is what is being done by the Development Department for instance.

Mr. Ginwala.—About packing cement in bags: does it not sometimes lead to deterioration as compared to cement packed in barrels?

Mr. Acharya.—It does when the atmosphere is very damp.

Mr. Ginwala.—In that case, it is hardly a prejudice.

Mr. Acharya.—In a place like Bombay, it does not deteriorate. But in Rangoon where the climate, we are told, is very damp, it is likely to deteriorate. That is why we are thinking of packing our cement in casks.

Mr. Ginwala.—I don't think that the climate of Rangoon is more damp than that of Bombay, because I have lived in both places for almost an equal number of years.

Mr. Acharya.—When we had an enquiry from Rangoon, they specially drew our attention to that fact. Then, we sent out cement in double bags.

Mr. Ginwala.—That is rather due to the fact that it takes you a much longer time to get to Rangoon than to Bombay, and in that way it is due to a longer sea voyage. Once the cement gets to Rangoon, the climatic conditions are not so different there from those of Bombay as to cause deterioration.

Mr. Acharya.—That is what they told us.

Mr. Ginwala.—In that case, you cannot call it prejudice.

Mr. Acharya.—Here it is our own fault. So far as Bombay is concerned, the prejudice is there.

Mr. Ginwala.—Can you get casks in India?

Mr. Acharya.—We can get. Messrs. Spedding & Co., have written to us saying that they can supply us casks. We have asked them two or three times to quote but they have not yet replied. They say that the making of casks is quite easy from shooks containing staves and bottom-pieces, 2 samples of which they have sent us. If we can pack cement in casks, it will be very nice for us all.

President.—How far has this proceeded? Have you calculated how much casks are going to cost you?

Mr. Acharya.—That is the main thing. We told them that our cost of packing cement in bags was Rs. 8 to 10. If we can have casks at about Rs. 13 a ton, we will go for them.

Mr. Ginwala.—Do you mean to say that they would send you materials for making casks?

Mr. Acharya.—Yes. In one lump they put two bottom pieces and these staves, and they say that the procedure of making the whole thing into a cask is very simple.

President.—That has to be made on the spot.

Mr. Acharya.—Yes. The works of Messrs. Spedding & Co., are at Jhelum. We have asked them for quotations (f. o. r. Dwarka).

President.—They will have to come by train.

Mr. Acharya.—Yes.

President.—It would depend upon their quotations.

Mr. Acharya.—Yes, it is a serious matter. If we could pack our cement in casks, we will get our market in Rangoon. It depends upon you now whether you give us protection and consequently greater market.

Mr. Ginwala.—It depends a good deal upon the industry itself.

President.—The industry ought to realise that success depends upon itself.

Mr. Acharya.—True.

Mr. Kale.—The implication of what you were telling the President and Mr. Ginwala appears to me to be this. There are certain Government engineers who in order to encourage their own countrymen and their manufacturers are inclined to show greater favour to British cement than to Indian cement. That seems to be the implication. At the same time you are not able to prove your allegation. Is that correct?

Mr. Acharya.—Yes, but the allegation itself being of a particular nature, I think that it will be very difficult to prove it. We cannot be taken into the confidence of these engineers.

Mr. Kale.—Is it a fact that you are not able to prove it because you are afraid that your business will suffer if you make certain disclosures in connection with facts which you know?

Mr. Acharya.—Partly it is so. So far as I am concerned I have not come across any concrete instances.

President.—I put to you a question whether you knew of any concrete instances.

Mr. Acharya.—I told you that I did not know of any.

President.—In that case you cannot be afraid of making disclosures when you have nothing to disclose.

Mr. Acharya.—I shall see if I can communicate with the man who met me.

President.—I am afraid I must put it quite plainly that gossip in railway carriages is not sufficient evidence to put before the Tariff Board.

Mr. Acharya.—I will see whether I can substantiate that.

President.—The Board cannot take any notice of that particular instance.

Mr. Kale.—If you cannot publicly give it, can you give us the information in confidence? It is very important for us to know that in order that steps may be taken to discourage that practice, if any such exists.

Mr. Acharya.—I will ask the Board of Directors whether they can give you anything.

Mr. Kale.—That is to say, the Board knows something about it?

Mr. Acharya.—The Board may know.

President.—I am afraid I still do not understand how the witness's statements are to be reconciled. He has no definite information, but he holds out the hope of a disclosure in confidence.

Mr. Ginwala.—Why do you say that the Board may know something?

Mr. Acharya.—They know more people than I do.

Mr. Ginwala.—Have you any reason to suppose that they know?

Mr. Acharya.—I think so.

President.—I understand now. Although you do not know personally there may be cases known to your firm?

Mr. Acharya.—You are right.

President.—Certainly the Board will be glad, if your Directors think it proper to bring any case of that kind to the notice of the Board, to secure the information. If they concern Government engineers, you would also do well to bring them to the notice of the Indian Stores Department who are in a position to take immediate action.

Mr. Acharya.—Yes.

Mr. Kale.—In your answer to Question 4 you say that the factory commenced manufacturing cement practically in January 1922. The company was established on the 20th of February 1919. I want to know why there was such a delay.

Mr. Acharya.—The machinery has to be transported all the way from America to India.

Mr. Kale.—Do you think that normally, between the establishment of a company and the opening of the works it would be three years?

Mr. Acharya.—At that time it was so. There were very great difficulties, *e.g.*, in getting sea freight.

Mr. Kale.—You had difficulties to face and the delay is to be attributed to them?

Mr. Acharya.—Yes. We actually commenced to manufacture in December 1921, but practically in January 1922. That is what I have said.

II. RAW MATERIALS.

President.—As regards your answer to question 12: the question is "What are your annual requirements of each of the raw materials according to your present rate of output (which should be stated)" and you say "Roughly 42,500 tons (present average output 25,000 tons)." What we want is separate figures for limestone, clay and gypsum.

Mr. Acharya.—We have given you the basis in answer to question 13.

President.—We want to know what your annual requirements are. If you have the information with you here, would you give it to us now? If you have not got it with you, would you be kind enough to send it to us later.

Mr. Acharya.—I have not got the information here. I will send it to you. As we have given the basis, it is a mere calculation and nothing further. *

President.—I see that as regards clay and limestone, under your concession from the Baroda Durbar, the royalty is payable per ton of cement, is it not?

Mr. Acharya.—Yes.

President.—What quantity of gypsum do you use for one ton of cement?

Mr. Acharya.—2½ to 5 per cent., sometimes about 28 lbs. per ton.

President.—If the latter figure is right, it is nothing like 5 per cent.

Mr. Acharya.—Sometimes it comes to 5 per cent.

President.—If it is 28 lbs. it is about 1¼ per cent. You have given us two answers. One is 2½ to 5 per cent. and the other is 28 lbs. Which of these is correct?

Mr. Acharya.—All of them are correct. If it is quick setting we have to add more gypsum.

President.—How much gypsum did you use for instance to get your production of 1923 which is 25,000 tons?

Mr. Acharya.—I shall send you the figures later. †

President.—You say that the royalty paid during the last two years at an average rate comes to 14 annas a ton. What I wished to ascertain was what that came to per ton of cement. Unless you can give approximately the quantity of gypsum you used per ton of cement, I cannot make the calculation. But, if we take the largest figure you have given, namely 5 per cent., on that basis the royalty on gypsum would apparently come to something less than an anna per ton of cement.

Mr. Acharya.—True. But we had stocks at that time. We keep stocks.

President.—Is not that correct? As far as I can calculate on the figures that you have given, the royalty on gypsum per ton of cement seems to be less than an anna per ton of cement.

Mr. Acharya.—You are right.

President.—In answer to question 23 you say you have got supplies sufficient for 40 years. Then you go on to say "As years go on, the cost will of course increase owing to the fact that our quarries will be further from the factory site, and the consequent haulage from a longer distance." How far do you think you may have to haul from?

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* A. Stone	31,250 tons.	B. Stone	1,25,000 tons.
Clay	10,000 ,,	Clay	40,000 ,,
Gypsum	1,250 ,,	Gypsum	5,000 ,,

† The Consumption varies between 3 and 4 per cent.

Mr. Acharya.—Three or four miles further.

President.—Not more than that?

Mr. Acharya.—No.

President.—So that roughly your cost of haulage might increase to twice the present figure?

Mr. Acharya.—I do not think it will increase to such a high figure.

President.—You are hauling from two miles at present, and you think you may have to go up to four miles. Is it not reasonable to say that your haulage charges might double?

Mr. Acharya.—It may not be exactly double. I do not think it will be more than 1½ times.

President.—It won't run up to more than that?

Mr. Acharya.—No.

President.—Has your firm calculated the present cost of haulage per ton of cement?

Mr. Acharya.—We are doing it by contract at present.

President.—Do they do all the haulage? Possibly you pay an inclusive rate for both excavation and haulage.

Mr. Acharya.—At present we are not paying them haulage.

President.—To whom do you pay the haulage?

Mr. Acharya.—Partly it is borne by us and partly by the contractors.

Mr. Ginwala.—This 65 per cent. of wastage in answer to question 13, is equal to 13 cwts. in a ton?

Mr. Acharya.—Roughly: there is much water in the slurry that is produced.

Mr. Ginwala.—Does this 65 per cent. include water?

Mr. Acharya.—Yes.

Mr. Ginwala.—You say that 25 cwts. of limestone and 8 cwts. of clay are required to produce one ton of cement?

Mr. Acharya.—*Plus* gypsum.

Mr. Ginwala.—There is little wastage after calcining. There is no water in that?

Mr. Acharya.—No.

Mr. Ginwala.—I am asking whether 65 per cent. or 13 cwts. is lost for every ton.

Mr. Acharya.—Yes.

Mr. Ginwala.—Why did you adopt the wet process?

Mr. Acharya.—It was supposed to be up-to-date in these days.

Mr. Ginwala.—The dry process people say the same thing of their process. Is it because that your raw materials are of a softer nature?

Mr. Acharya.—Also.

Mr. Ginwala.—So that is also a reason why you adopted this wet process. Can you apply the dry process to your materials and produce as good a cement?

Mr. Acharya.—We may, but there are risks attached to the dry process.

Mr. Ginwala.—It is the materials, then, that made you adopt this process. Can you not apply the dry process to your materials?

Mr. Acharya.—The dry process plant is different from the wet process plant.

Mr. Ginwala.—I know it is. It does not do you any harm to say that because your materials are more suited to the wet process you are adopting it. If that is the case, why not say so?

Mr. Acharya.—Partly we may say that.

Mr. Ginwala.—Your raw materials, on the whole, cost a little more than the raw materials in the other places?

Mr. Acharya.—No. The cost was high during the last two years but now it has been brought down materially and I think it is less than even Rs. 2-7 now.

Mr. Ginwala.—How much clay do you use per ton?

Mr. Acharya.—8 cwts.

Mr. Ginwala.—You say that the cost of limestone has gone down from Rs. 3-9-8 to Rs. 2-7-5.

Mr. Acharya.—Formerly we were working it departmentally in our quarry, and now we have given it to a contractor who is quoting us better rates.

Mr. Ginwala.—In clay you have gone up?

Mr. Acharya.—Yes because circumstances sometimes are different, but they will come down this year.

Mr. Ginwala.—Are you working that departmentally or by contract?

Mr. Acharya.—Partly departmentally and partly also by contractors.

Mr. Ginwala.—How much do you expect to bring it down to?

Mr. Acharya.—We may bring to Rs. 1-5.

Mr. Ginwala.—And stone?

Mr. Acharya.—May come to Rs. 1-15.

Mr. Ginwala.—When do you expect to get that result?

Mr. Acharya.—We have asked for tenders now and we hope to get better results soon.

Mr. Ginwala.—See your answer to Question 23: you expect your cost to go up. In answer to question 19 you expect to bring your cost down.

Mr. Acharya.—It will go up, not immediately.

Mr. Ginwala.—Do you mean after a pretty long time?

Mr. Acharya.—At least 10 to 15 years afterwards.

Mr. Ginwala.—Are you sure you have got 40 years' supply in your quarry?

Mr. Acharya.—More than that. The lease we have got is for forty years but the supplies are more than 40 years.

Mr. Ginwala.—To what depth do you expect to work your quarry? For how many feet have you got these strata of lime?

Mr. Acharya.—Limestone is generally on the surface.

Mr. Ginwala.—Yes, or you may have to go down a few feet.

Mr. Acharya.—I shall get you detailed information about that.

Mr. Ginwala.—We do not want detailed information. We simply wanted to know whether you were quite sure you had a supply of lime for forty years.

Mr. Acharya.—We are sure. We got that investigated by competent people.

Mr. Ginwala.—Has this been verified since?

Mr. Acharya.—Yes.

Mr. Kale.—At what distance are the clay pits from your works? Your quarries are at a distance of two miles from the works. How far are these clay pits?

Mr. Acharya.—Almost the same distance—two miles.

Mr. Kale.—Do you find limestone and clay both together?

Mr. Acharya.—The clay is alluvial clay. There is an open creek there and when the currents are coming we get alluvial clay, and these pits are dug and the clay is taken.

Mr. Kale.—It is the river that brings this silt and the clay consists of the silt on the bank of the river?

Mr. Acharya.—Yes.

Mr. Kale.—That river bank is two miles from the Works?

Mr. Acharya.—Roughly.

Mr. Kale.—In the same direction from the factory or in a different direction?

Mr. Acharya.—Somewhat different directions.

Mr. Kale.—I was wondering how you can get both of your raw materials at the same place.

Mr. Acharya.—It must be in different directions. I have not gone to the factory as yet and I do not know exactly.

Mr. Ginwala.—You are the Secretary to the Company?

Mr. Acharya.—There are the Managing Agents and I am the Company's Secretary.

Mr. Ginwala.—Are not the Managing Agents Secretaries to the Company?

Mr. Acharya.—In a way they are.

Mr. Kale.—What is the relation between the Managing Agents and the Secretary? Is the Secretary appointed by, and under the control of, the Managing Agents or is he appointed by the general body of shareholders?

Mr. Acharya.—He is under the control of the Managing Agents.

Mr. Kale.—By whom is he appointed and paid?

Mr. Acharya.—By the Company.

Mr. Ginwala.—Are you Secretary to the Managing Agents or Secretary to the Company under the Companies Act?

Mr. Acharya.—I am under the Managing Agents.

Mr. Ginwala.—Can you issue notices in your name convening a meeting of the shareholders?

Mr. Acharya.—No. I can file suits, etc., in the name of the Company.

Mr. Ginwala.—On behalf of the Managing Agents?

Mr. Acharya.—No.

Mr. Ginwala.—Managing Agents should be Secretaries of the Company in that case.

Mr. Acharya.—I am not the Secretary under the Companies Act and am just in the same position as Mr. Captain in the Central Provinces Cement Company.

Mr. Ginwala.—Are you in the head office?

Mr. Acharya.—I am in charge of the office there.

Mr. Ginwala.—By being in charge of the office do you mean you are the Managing Director? Are you the manager?

Mr. Acharya.—No. I am the head of the office.

Mr. Ginwala.—Of Purushotam, Vithaldas & Co.?

Mr. Acharya.—Yes.

Mr. Ginwala.—Who are the partners?

Mr. Acharya.—There were two partners, Sir Vithaldas Thackersay and Mr. Purushotam Vishram Mowjee. In the place of the late Sir Vithaldas Thackersay his brother Mr. Madhowjee Damodar Thackersay has stepped in. I am under their direct control. They are subject to the control of the Board.

President.—You are at the head of the section of the Agents' office which looks after the Cement Company?

Mr. Acharya.—That is right.

Mr. Kale.—You were asked about the wet process that you have adopted. Some of the witnesses who came before us told us—that is my impression—that the wet process was the more up-to-date process. But are you sure that this process was adopted by your company because it was up-to-date?

Mr. Acharya.—I think so. I am not one of the promoters of the Company.

Mr. Ginwala.—Was it not possible for your company to send a representative who was actually on the works?

Mr. Acharya.—One of the Directors was to accompany me but unfortunately his near relative died and he could not come.

President.—You may be unable to answer some of the important questions.

Mr. Acharya.—I shall supply the information.

Mr. Ginwala.—That delays the proceedings. The Company ought to have sent a man who had been at the Works. It is very difficult to examine a representative who had never been at the Works. I am not criticising you in any way, but as a Board we are entitled to get the best evidence the company can give, and the best evidence is that of the man on the spot.

Mr. Acharya.—We never thought that technical questions would come before the Tariff Board: otherwise I would have brought the Works Manager with me.

Mr. Ginwala.—We are very much handicapped by two facts: one is that your cost account is given in a way which does not help us. If you had with you another man who was in charge of the works we should have been able to get some information about the works costs.

Mr. Acharya.—I have got the cost sheets here.

Mr. Ginwala.—I hope you will be able to answer the questions, but the position is rather unsatisfactory you will admit.

Mr. Acharya.—I shall try to give answers to the best of my ability.

VIII. Capital Account.

President.—I notice that the total amount of your block is Rs. 76 lakhs. Your factory has a capacity of 100,000 tons: that means that your capitalisation is Rs. 76 per ton.

Mr. Acharya.—Yes.

President.—The importance of that figure is this. If we can obtain the figures as to the capitalisation per ton of factories in other countries, it would to some extent enable us to ascertain how far the Indian manufacturer is handicapped by the higher price of machinery and so on in India. Has your company any information on that point as to the capitalisation of some companies elsewhere?

Mr. Acharya.—All over the world?

President.—In any of the competing countries.

Mr. Acharya.—We have not got that information.

President.—We have put one question which I think you are unable to answer. In reply to Question No. 81 you say "we believe that the present cost of a factory under the heads of buildings and plant and machinery having the same output as ours might possibly be a little less, for the obvious reason that there has been a general decline in prices. We are unable to give any detailed answers to this question at the present moment, due to short notice." The importance of that is that this factory was put up at a time of very high prices, and the result is that your capital account must be swollen in consequence.

Mr. Acharya.—Compared with the Central Provinces Cement Company we find that our capital account is very low.

President.—If the same plant and machinery were purchased now, the cost would naturally be a great deal less, owing to the great fall in prices of machinery. That is why we put this question in order to ascertain, if possible, what the present-day cost of the plant may be. It might be Rs. 60 lakhs instead of Rs. 78 lakhs.

Mr. Acharya.—May be. We shall have to get quotations: we have no information. I will let you have those.*

President.—In answer to Question 82 you have given us the rate of exchange at which the payments for the plant were remitted. Can you tell us what the current rate of exchange is between India and America?

Mr. Acharya.—It is Rs. 325 to Rs. 340 per hundred dollars.

President.—So part of your remittances were made at about the present rate, and part at a slightly higher rate?

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* Not received.

Mr. Acharya.—Yes.

Mr. Ginwala.—What is this sum of Rs. 2,50,000—first item in the answer to Question 78 (*a*)?

Mr. Acharya.—Cost of concessions.

Mr. Ginwala.—Whom did you buy from?

Mr. Acharya.—Mr. Purushottam Vishram Mawji and Sir Vithaldas Thackersey got them from the State, and it was purchased from them by the Company.

Mr. Ginwala.—Was it purchased in cash or shares?

Mr. Acharya. -Shares.

Mr. Ginwala.—With regard to Question 81 in dealing with the steel industry we applied a certain method; it was not a very accurate method, but it appeared to be reasonably sound. We found that there also machinery had been bought in certain years at very high prices, and we had to find its replacement value this year. I take it that most of your machinery is steel too?

Mr. Acharya.—Yes.

Mr. Ginwala.—It is necessary for us to decide whether the cement industry has done the same, that is to say, they have paid more for machinery. We are not blaming them in any way: they bought it at a time when machinery was expensive. Supposing we apply the same method to ascertain the present day value of your machinery, would you object to that method—because, if you do, you will have to give us some other method which you consider more accurate.

Mr. Acharya.—There is no harm in adopting that method.

Mr. Ginwala.—It is not necessary to work afresh those costs.

Mr. Acharya.—This is the actual value according to the block.

Mr. Ginwala.—What we did there was this: we took the prices of different kinds of steel what is called the composite value; for instance, we took seven or eight different varieties of steel and we found the average for them, *e.g.*, joists, beams, bars, etc. We found that in the year 1917 the composite price was, say, Rs. 100 per ton and now it was Rs. 80, and that, therefore, the value was Rs. 20 less than in that particular year. That was the method we applied—please see pages 42 and 43 of our Report on the Steel industry. With necessary modifications, if we applied that method to your plant, you would not object very much?

Mr. Acharya.—No.

President.—You have told us that you made remittances in 1921—Question 82. That means that the money was actually spent in 1921. When did you place the order?

Mr. Acharya.—1919-1920.

President.—Could you give us roughly about how much in 1919 and how much in 1920?

Mr. Acharya.—About 75 per cent. in 1919 and the remaining 25 per cent. in 1920.

Mr. Ginwala.—You say in answer to Question 90 "We do not contemplate carrying out any very great replacements or extensions of the plant at the moment barring the two items mentioned in answer to Question 76 (*b*). The approximate cost will be Rs. 1,00,000." Will it increase your output?

Mr. Acharya.—At present we cannot get good water: if we have a good distilling plant we shall get better water. The bad water injures the boiler tubes.

Mr. Ginwala.—Do you take sea water?

Mr. Acharya.—We do not at present.

Mr. Ginwala.—That injures the boiler tubes?

Mr. Acharya.—Yes.

Mr. Ginwala.—At what pressure do you work them?

Mr. Acharya.—It is a technical information which I shall send later. We have got our four boilers made by Messrs. Babcock and Wilcox.

Mr. Ginwala.—These alterations you want to make are with reference to water?

Mr. Acharya.—We are thinking of installing a distilling plant and a three-throw slurry pump for agitating the slurry.

Mr. Ginwala.—It has nothing to do with your output?

Mr. Acharya.—It has to do.

Mr. Ginwala.—Will it increase your output?

Mr. Acharya.—No. There is no question of increasing the output at all.

President.—Do you mean that the boilers would last longer; so the capital expenditure to be increased would reduce the cost of repairs?

Mr. Ginwala.—It is a very unfortunate situation that you are in regarding water.

Mr. Acharya.—At the beginning water was very nice, but owing to the scarcity of rains, we have to go very deep.

Mr. Ginwala.—How much is the plant going to cost you?

Mr. Acharya.—Rs. 75,000 for the distilling plant and Rs. 25,000 for the slurry pump.

President.—That is on the whole a lakh of rupees?

Mr. Acharya.—Yes.

Mr. Kale.—I wonder what you intend to convey by the last sentence in answer to Question 81: "We believe that the operating cost of a new factory would not make any very great difference with ours since this is a common factor affecting all at the same time."

Mr. Acharya.—Because the materials are there. Supposing another man puts up a factory at Dwarka, the same raw materials will be there, the cost will also roughly be the same, labour will be the same, therefore it will make no material difference.

Mr. Kale.—You are taking the question in that sense?

Mr. Acharya.—Yes.

Mr. Kale.—Our question was if up-to-date machinery was purchased at a lower price than the price you paid for yours, naturally the operating cost would be lower than what has to be paid by your factory.

Mr. Acharya.—Our factory is up-to-date.

Mr. Kale.—So that there are no improvements in the plant which have been introduced recently?

Mr. Acharya.—Barring the widening of the burning zone of the kiln that makes calcining perfect, there has been no other improvement. The kiln is a long cylinder and one of the improvements made is that the burning zone has been widened.

Mr. Kale.—That would not make much difference in cost?

Mr. Acharya.—No.

IX. Cost of Production.

(a) *Works Costs.*

President.—Apparently you do not keep your accounts in a manner which will permit you to give us the information we asked for.

Mr. Acharya.—I regret they are not kept in the way in which they should have been kept. Now we are going to have a perfect costing account.

President.—That won't help us very much now.

Mr. Ginwala.—From what you have given us it is hard to say what your costs are.

Mr. Acharya.—I have got all the information with me and shall be glad to answer your question.

President.—But that puts an unnecessary burden on the Board. Your firm might have taken a little trouble to comply with our wishes in the matter.

Mr. Acharya.—The system in which Form II has been provided by you is not the form in which cement accounts are kept. I will just make matters plain. In the first form you ask for the total production of cement for the year. Suppose we make 40,000 tons of clinker, and cement is only 25,000 tons.

President.—There is only one per cent. difference between clinker and cement. From one ton of clinker roughly how much cement do you get?

Mr. Acharya.—About one ton of cement. Since you put only total production here we did not know what to put, whether you required the cement production or the clinker production.

President.—When you found that difficulty, did your firm ask the Board what they meant?

Mr. Acharya.—I am prepared to answer your questions.

Mr. Ginwala.—Ordinarily a manufacturer does not have an excessive quantity of clinker in stock.

Mr. Acharya.—We had.

Mr. Ginwala.—You had, quite true, but other manufacturers make clinker and convert it into cement.

Mr. Acharya.—So far as my own information goes other companies also are obliged to keep lot of clinker in stock.

Mr. Ginwala.—What is your difficulty?

Mr. Acharya.—Your form gives columns for raw material, factory labour and so on. No column for clinker is provided for at all.

Mr. Ginwala.—What is your position with regard to the publication of figures? All the companies that have come before us, so far as the cement and paper industries are concerned, and as you know the Tata Iron and Steel Company also, have agreed to the publication of the cost figures.

Mr. Acharya.—Does the Board find it necessary to do so?

Mr. Ginwala.—Absolutely. Unless we are able to substantiate our recommendations with facts and figures which the Assembly and the Government of India can scrutinize, our position is unsatisfactory.

Mr. Acharya.—Do you want the details also?

Mr. Ginwala.—Certainly.

President.—After all you have not given us any information which you need be anxious about.

Mr. Ginwala.—The Gwalior Cement Company, the Indian Cement Company and the Central Provinces Cement Company, and also three Paper companies, have all agreed to the publication of all the costs and all other figures.

Mr. Acharya.—Very well, we have no objection.

Mr. Ginwala.—Are you prepared to give us the cost in the way we want it?

President.—You work out separately, I gather, the cost of clinker?

Mr. Acharya.—Yes.

President.—Then in order to get the cost of cement all that you have got to do is to add the cost of the items involved in the conversion of clinker into cement.

Mr. Acharya.—I will supply this information as soon as I go to Bombay. I will send it to the Board within 5 days. *

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* Not received.

Mr. Ginwala.—In Form II you have given us your conversion cost from clinker to cement?

Mr. Acharya.—Yes.

Mr. Ginwala.—It was Rs. 5 in 1922 and Rs. 6-12 in 1923 which is not much. In this form you could have said the cost of clinker was so much, and then that from clinker to cement it was so much.

President.—I must say frankly that we have not received the assistance from the Company to which we were entitled.

Mr. Acharya.—We shall be very glad to give you all the information you want.

President.—I think it would be useful, if you could give us now the figures showing the amount of clinker produced, cement ground, cement packed and the cost per ton for each month during the current year beginning from January.

Mr. Acharya.—

January 1924—

Clinker produced	1,978 tons.	
Cost per ton	Rs. 33-13-9.	
Cement ground	2,575 tons.	
Cost per ton	Rs. 4-12-3.	
Cement packed	1,803 tons.	
Cost per ton	Rs. 12-2-9.	Total Rs. 50-12-9.

February 1924—

Clinker produced	3,210 tons.	
Cost per ton	Rs. 30-5-5.	
Clinker ground	3,537 tons.	
Cost per ton	Rs. 4-0-9.	
Cement packed	1,690 tons.	
Cost per ton	Rs. 12-4-9.	Total Rs. 46-10-11.

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March 1924—

Clinker produced	3,503 tons.	
Cost per ton	Rs. 27-11-11.	
Cement ground	3,387 tons.	
Cost per ton	Rs. 3-13-7.	
Cement packed	2,729 tons.	
Cost per ton	Rs. 11-0-9.	Total Rs. 42-10-3.

April 1924—

Clinker produced	3,108 tons.	
Cost per ton	Rs. 30-6-6.	
Cement ground	2,499 tons.	
Cost per ton	Rs. 4-7-10.	
Cement packed	3,065 tons.	
Cost per ton	Rs. 10-4-0.	Total Rs. 45-2-4

In May we worked for only 6 or 7 days and it is not typical.

Mr. Ginwala.—What was the reason?

Mr. Acharya.—There was no coal. The Railway Company could not bring the coal there; there was restriction on booking of coal and we could not get it

Mr. Ginwala.—Where do you get your coal from?

Mr. Acharya.—We get some from the Central Provinces and some from the Bengal coalfields. Sometimes we buy from foreign countries also, but on account of want of docks there are no loading facilities. A dock is now being constructed at Dwarka and then we will bring our coal by steamer which will make a lot of difference in the freight.

Mr. Ginwala.—Are you going to be connected by rail with the dock?

Mr. Acharya.—Yes. The factory is only two or three miles from the shore, but the shore where the dock is being constructed is about 18 miles from our factory, and we have already connected ourselves with that by rail. It is going to be an all the year round port.

Mr. Ginwala.—When will it be ready?

Mr. Acharya.—Within a year.

Mr. Ginwala.—When did they start?

Mr. Acharya.—A year back. We will then be at an advantage even for shipping to Rangoon.

Mr. Ginwala.—Have you got the boats coming regularly there?

Mr. Acharya.—Now the big steamers cannot touch at Dwarka. What we have got to do is to have the cement taken to Bombay and then tranship it, and that means a freight of 8 to 9 rupees.

Mr. Ginwala.—You have been getting some coal by sea?

Mr. Acharya.—We had got coal formerly by sea.

Mr. Ginwala.—And you unshipped it in boats?

Mr. Acharya.—Yes, and that used to cost a good deal, because we had to pay demurrage to the steamers.

Mr. Ginwala.—Is it a frequent matter, this shortage of coal? Was the congestion on the Kathiawad railway or on the British railways?

Mr. Acharya.—On the Jamnagar-Dwarka Railway. They ran short of engines with the result that booking was restricted.

Mr. Ginwala.—At what price did you get your Durban coal or Welsh coal?

Mr. Acharya.—We had Welsh coal in 1921 and 1922 and the price then was about 58 shillings a ton c.i.f. Dwarka. That is why our cost during the last two years increased; it makes a difference of about Rs. 13 in coal. Now coal is much cheaper as compared with the cost at that time.

Mr. Ginwala.—When is this railway situation going to improve?

Mr. Acharya.—They promised that within a month things will improve.

Mr. Ginwala. It seems that until the railway situation improves you cannot manufacture at all.

Mr. Acharya. -No. We can get coal by steamers.

Mr. Ginwala.—But during the rains you cannot unload your coal?

Mr. Acharya.—We can land it at a place called Arethara which is 18 miles off from the factory.

Mr. Ginwala.—Is the factory now connected with a railway?

Mr. Acharya.—The factory is already connected with the dock. Arethara is an all-year-round port, but the steamers cannot touch at the dock as it is at present under construction. The steamers lie in the stream.

Mr. Ginwala.—Have you seen the works?

Mr. Acharya.—I have the whole imagination of the factory before me although I have not seen it.

Mr. Ginwala.—Well, mere imagination is not of much use to us.

Mr. Acharya.—Imagination reinforced by facts and statements which I have with me. Of course, as regards technical questions I don't think I shall be able to answer those.

Mr. Ginwala.—Well, Mr. Acharya, let me tell you that the way you have presented your case so far is not very satisfactory. It does not present your business in a favourable light. The costs that you have given are Rs. 67

and Rs. 68 for 1922 and 1923, whereas in 1924 there has been a considerable drop in the works costs of which we would not have known anything, if we had not insisted upon your coming here.

President.—The Company said in their covering letter with which these written answers were sent "If after perusal of these replies the Board consider that a representative of our firm should be examined orally we shall be glad to send one for the same." It seems to me a peculiar attitude to take up when they have not given us more facts.

Mr. Ginwala.—The most important fact was that you had been able to bring down the cost of production by Rs. 21 per ton on an average, and that fact was not stated in your written representation; except that you had stated that you hoped to bring it down, no figures were given.

Mr. Acharya.—Excepting the total of 40 or 45, we did not give anything else.

Mr. Ginwala.—We should have thought that that was an estimate which was not necessarily based on facts, whereas you have facts which go to show that, during the first 4 months of this year that you have been working, you have been able to reduce your cost by 15 or 20 rupees a ton, which is a very important factor from your point of view.

Mr. Acharya.—Our future estimate would not be very different from this.

Mr. Ginwala.—During the last 4 months you brought down cost by Rs. 15 to Rs. 20 per ton. [illegible] say that [illegible] drop.

Mr. Acharya.—That was due to the coal. We had bought 25,000 to 30,000 tons of English coal at a very high price which we had in stock for about two years, and that is why the cost went up, and now from January the old lot of coal was exhausted and we are bringing cheap coal.

Mr. Ginwala.—Why did you have such a large stock of coal?

Mr. Acharya.—We thought we would work the whole plant. Unfortunately our expectations did not materialise.

Mr. Ginwala.—If you had run the whole plant you would have run short of coal.

Mr. Acharya.—It has lasted us these two years since we could not work the whole plant.

Mr. Ginwala.—Is that the main factor that contributed to the reduction of cost?

Mr. Acharya.—Yes; labour charges also may be less, but that is not appreciable.

Mr. Ginwala.—In the cement grinding also in proportion to the total amount there is a substantial reduction. What was that due to?

Mr. Acharya.—Gypsum was at a very high rate at that time. We had a stock of that also.

Mr. Ginwala.—In 1923 cement grinding came to Rs. 6-12. Now, there is a difference of Rs. 2.

Mr. Acharya.—Yes.

Mr. Ginwala.—The difference is about 20 per cent. That cannot all be due to gypsum.

Mr. Acharya.—Labour also has come down.

Mr. Ginwala.—Please try and explain.

Mr. Acharya.—Labour was high at that time.

Mr. Ginwala.—Is there much power used between the two processes, *viz.*, between clinker and cement?

Mr. Acharya.—Yes, power is used.

Mr. Ginwala.—Then, it may partly be due to coal?

Mr. Acharya.—Yes. I have omitted that altogether. Coal is also a main factor.

Mr. Ginwala.—The whole factory is worked by electricity which is generated by steam?

Mr. Acharya.—Yes.

Mr. Ginwala.—Steam is not used for running the factory?

Mr. Acharya.—Steam is only for running the boilers.

Mr. Ginwala.—What is your consumption per ton of cement?

Mr. Acharya.—15 cwts.—about three-fourths of a ton.

Mr. Ginwala.—It is a little more than usual.

Mr. Acharya.—Our coal had deteriorated at that time on account of having been stacked for a long time.

Mr. Ginwala.—What is your consumption now?

Mr. Acharya.—It has come down to 50 per cent. It was 75 per cent.

Mr. Ginwala.—75 per cent. of what?

Mr. Acharya.—Of a ton.

Mr. Ginwala.—Now it has come to half a ton?

Mr. Acharya.—Yes.

Mr. Ginwala.—So that the deterioration must formerly have been very great. You were then using English coal which is of superior quality?

Mr. Acharya.—For two years it was lying there.

Mr. Ginwala.—Are you using Bengal steam coal?

Mr. Acharya.—Best Bengal steam and also some C. P. steam coal.

Mr. Ginwala.—And you mix the two?

Mr. Acharya.—We use the C. P. steam coal in boilers. Bengal coal we use in the kilns.

IX. (b) OVERHEAD CHARGES.

(i) *Depreciation.*

President.—You tell us that, at Income-tax rates on the original cost to your plant, depreciation comes to about Rs. 4,53,000, and at the rates which you consider suitable it would come to Rs. 4,94,000.

Mr. Acharya.—Yes.

President.—That would be roughly Rs. 5 a ton on the full output.

Mr. Acharya.—Yes.

President.—The only question I have to ask you about the depreciation rates is this. We have had similar evidence from some other companies also, but has your experience been long enough in manufacturing cement to enable your company really to form an independent opinion as to the proper rate of depreciation on machinery? You have been manufacturing cement for the last two years only.

Mr. Acharya.—Yes.

President.—Then your evidence on this point is a little theoretical just now?

Mr. Acharya.—Yes.

President.—You will know better in a few years time?

Mr. Acharya.—Yes.

Mr. Ginwala.—With regard to depreciation: in determining the price at which you are to be able to sell, is the Board to take depreciation and distribute it over your present output or your full capacity?

Mr. Acharya.—The full capacity.

Mr. Ginwala.—That you consider would be fair. Do you understand the meaning of the answer?

Mr. Acharya.—Yes, otherwise the cost would be high, if you take it on the present capacity.

Mr. Ginwala.—Do you bring the whole of the plant in operation to produce your present output or do you use only a portion?

Mr. Acharya.—We are using only one unit.

Mr. Ginwala.—Really speaking, there is no actual depreciation of the other unit due to wear and tear?

Mr. Acharya.—No.

Mr. Ginwala.—Are these two units entirely separate?

Mr. Acharya.—Some parts of it.

Mr. Ginwala.—Take the generating part.

Mr. Acharya.—We have got four boilers.

Mr. Ginwala.—And how many dynamos?

Mr. Acharya.—It is double unit.

Mr. Ginwala.—One unit is only working at present?

Mr. Acharya.—Two boilers and one unit are working.

Mr. Ginwala.—So half, of your plant is not working?

Mr. Acharya.—Yes, except the coal mill. It is the only mill which is fully working.

Mr. Ginwala.—That is a small item.

Mr. Acharya.—It is not a small item.

Mr. Ginwala.—You merely pulverise the coal there. That is the only part of the plant which is fully in operation?

Mr. Acharya.—Yes.

Mr. Kale.—Does not the plant deteriorate by remaining out of operation?

Mr. Acharya.—Yes, therefore I think that the depreciation is more.

Mr. Kale.—You have to allow for depreciation, not only because the plant is in operation, but also because it is not in operation?

Mr. Acharya.—Certainly.

Mr. Kale. You did not tell Mr. Ginwala that a large amount of depreciation must be taken into account even though it increases the cost.

President.—Mr. Ginwala's question was confined to wear and tear.

Mr. Acharya.—There is no help.

IX. (*b*) OVERHEAD CHARGES.

(*ii*) *Working Capital.*

President.—It seems to me, if you will allow me to say so, that your figures are grotesque. We must try and get them on the same sort of coherent basis. You hope that your works cost will come down to Rs. 40?

Mr. Acharya.—Yes.

President.—Well then, to produce 100,000 tons a year, it will cost Rs. 40 lakhs. That will be your total cost for the whole year. On the basis that you have given in your satement, the working capital will be equal to the cost of your output for 1½ years.

Mr. Acharya.—We have taken the whole year's requirements.

President.—The figure is so impossible that I am afraid the method by which you have arrived at it cannot be accepted.

Mr. Acharya.—As I said, we have taken the whole year's requirements.

President.—But you don't have to provide constantly for a whole year's requirements. These sums of Rs. 65 lakhs and Rs. 19 lakhs are based on the requirements of the whole year?

Mr. Acharya.—Yes.

President.—It is a year's works cost, is it?

Mr. Acharya.—Yes.

President.—What working capital means is this. The need for working capital arises from this fact that a certain interval lapses between the time when the expenditure on production is incurred and the time when payment is received. If a month's output is known and also the number of months that elapse between production and payment the working capital required can be calculated. Under normal conditions, it cannot be as long as a year.

Mr. Acharya.—As regards outstandings, we will of course get payments from time to time.

President.—What is the working capital that would be required on your full capacity? If your works costs are Rs. 40 a ton, for 100,000 tons the total costs incurred in a year will be Rs. 40,00,000. Let us take the period that elapses between production and payment as nine months. On that basis the working capital would be Rs. 30 lakhs, would it not? If you could borrow at 7½ per cent., your annual payment in interest would be between 2 and 2½ lakhs, the incidence of which would be Rs. 2½ a ton. Do you think that this method would be a satisfactory method of working?

Mr. Acharya.—No.

President.—Why not?

Mr. Acharya.—We have calculated on the basis of one year. It is rather very optimistic.

Mr. Ginwala.—Is that optimistic?

Mr. Acharya.—Optimistic, so far as the figure of the money required is swollen.

Mr. Kale.—You don't get it because you put it higher.

President.—If you have to wait for a year for payment, you will have to stop. No business can be carried on on that basis.

Mr. Acharya.—Sometimes we do not get payments for two years from Government.

Mr. Ginwala.—Which Government is this?

Mr. Acharya.—The Bombay Government.

President.—You will have to give a great deal more evidence than you have given yet, before you satisfy us that anything like that period is necessary.

Mr. Acharya.—You may deduct it to that extent.

President.—All I can say is that I am not prepared at the moment to accept your figures.

Mr. Acharya.—The basis that we took in arriving at this figure is this. We took the share capital *plus* the amount borrowed. It was something like Rs. 97 lakhs. Then we took the fixed capital expenditure. We thought that the whole capital *minus* the fixed capital expenditure was the working capital.

President.—That is a different explanation. On that basis what it means is that you have been working at a loss. Therefore there has been a heavy debit to the profit and loss account.

Mr. Acharya.—I think so. Our last balance sheet has not yet been prepared.

President.—Once the business settles down and becomes firmly established, you will make profit. You won't have to carry the initial loss as a normal part of your business.

Mr. Acharya.—Part of the working capital is lost.

Mr. Ginwala.—Even if you take the whole works cost for a year, it will be Rs. 15 lakhs on the 1923 figures. Now your works cost has been reduced by about 20 per cent., is it not?

Mr. Acharya.—Yes.

Mr. Ginwala.—If you reduce your working capital by 20 per cent. it is only Rs. 12 lakhs.

Mr. Acharya.—You may take it at that figure.

President.—You cannot take it at that figure. The working capital on a year's turnover is absurd.

Mr. Acharya.—In that case there will be more deductions. As I say the working capital is being lost. That is why we have to take it like that.

Mr. Ginwala.—If you go on adding losses to the working capital it will be enormous. You want 8 per cent. return on the losses!

Mr. Acharya.—At present we don't want any return on the share capital. The very existence is in question.

IX. (*a*) WORKS COSTS.

(*iii*) *Agents' Commission and Head Office Expenses.*

Mr. Ginwala.—How do you calculate your net profits? Is it the usual way, or how do you calculate your nett profits for the Agents' Commission? What do you call net profits? Do you deduct depreciation first or not?

Mr. Acharya.—I don't know exactly the terms of the agreement. It will be calculated on the profits shown in the balance sheet.

Mr. Ginwala.—But how would you calculate the net profits?

Mr. Acharya.—After deducting depreciation, I think.

Mr. Ginwala.—Don't be in a hurry to answer. Some companies don't even deduct the interest on debentures.

Mr. Acharya.—I think that I will have to refer to the agreement. The agreement simply states that the Agents' Commission should be calculated on the nett profits of the company. We had no chance of doing that.

Mr. Ginwala.—You made profits in 1923.

Mr. Acharya.—Nothing was paid to the Agents. Actually nothing was paid. They forewent the Commission because the profit was infinitesimal.

Mr. Ginwala.—There was perhaps no profit at all. You did not deduct the interest on debentures and possibly depreciation.

Mr. Acharya.—There is a point about the interest on debentures. Can it be taken on working capital?

President.—If your fixed capital expenditure exceeds your share capital, then presumably the debentures or part of the debentures must have been used for fixed capital expenditure. You cannot lay down an absolute rule on that. It depends on the circumstances of each company.

XI. CLAIM FOR PROTECTION.

President.—In your answer to question 117 you say "Along with this, urbanisation of the rural areas is going on. There are 700,000 villages in India and if urbanisation is going on as it is at present going on on a pretty large scale, etc." Compared to most other countries urbanisation is going on slowly in India, and if your hopes for the growth of the industry are based on the use of cement by ordinary villagers, I fear they are not well founded. You say in your answer to question 119 (C) . . . . .

Mr. Acharya.—I must ask your permission to make a correction there. It was drafted on the understanding that stores that are imported on behalf of Government are not charged Customs duties. That was our belief. Since then, we were advised that Customs duties are charged. The proper answer to the question is "Legislation *re* anti-dumping."

President.—I don't think that Government purchases have anything to do with the question. The question was "What special measures (if any) do you suggest to safeguard the cement industry against under-selling by reason of any cause other than reduction in the foreign cost?" Government purchases are not causes.

Mr. Acharya.—In this way it is. Suppose the f.o.b. price is 58*s.* in London. If the person who supplies to Government sends it out, here the man has not got to pay import duties, but supposing the same stuff is imported by an agent of that company import duties are charged and, if the Government buys in India, the cost will be more.

President.—I gather that the answer was given under a misapprehension and we need not discuss it further. In question 63 we asked you to compare the freight you have to pay to reach your markets in India with the total freights—sea and rail—payable on imports to the same markets. You give the London freight to Bombay, Calcutta, Madras, Rangoon and Karachi, but you only give your own freight to Rangoon. Why have you omitted the markets much nearer to you and therefore more important to you?

Mr. Acharya.—I shall give you now.

President.—But why was not the information given in the written evidence? The comparison you have made is, as it stands, an unfair comparison. You practically imply that Rangoon is your most important market. That is misleading. Can you tell me what your freight rates to Bombay and Karachi are?

Mr. Acharya. Rs. 7 to Rs. 8.

President.—That is by sea?

Mr. Acharya.—Partly by sea and partly by rail. We have got agreements with a shipping company.

President.—Where do you ship it from? Is it from the place which is eighteen miles from your factory?

Mr. Acharya.—Yes.

President.—With what company have you entered into the agreement?

Mr. Acharya.—Messrs. Killick Nixon & Co.

President.—Turning back to your answer to question 120, you say "This amount of protection which the industry receives is altogether neutralised due to the heavy freights the indigenous industry has to pay in reaching the internal markets only. In fact this does not give any sort of protection altogether." But your freight to Bombay and Karachi is a great deal less than the Customs duties *plus* the freight which the importer has to pay.

Mr. Acharya.—We had Rangoon in our mind at that time.

President.—Why do you go on talking about Rangoon? How do you expect to be able to make Rangoon your principal market?

Mr. Acharya.—We are situated at a port and we want to go there.

Mr. Ginwala.—What about the Porbandar people?

Mr. Acharya.—They can also go there.

President.—Your advantage, as compared with the other cement companies, is in Bombay and Karachi, is it not?

Mr. Acharya.—We are there already.

President.—Why do you not mention them, and why do you make statements which are not correct the moment you apply them to Bombay and Karachi?

Mr. Acharya.—We wanted to point out the disadvantages we are labouring under.

President.—You say at the very end of your answer to the same question "The important thing to be seen is that the consumer does not stand to lose, neither the tax-payer," to which I would only add "and the producer does not stand to gain."

Mr. Acharya.—The producer does stand to gain.

President.—I don't ask you to accept my addition.

Mr. Acharya.—Suppose we get more markets, our costs would be less.

President.—You have not given us any figures to make us think so.

Mr. Ginwala.—Supposing you have got the protection of Rs. 25 a ton, how would it secure to you the market? Supposing your works cost came down, even then you would have to compete with your other Indian rivals and, even if a duty of 25 per cent. is imposed, the likelihood is that you won't get a better price.

Mr. Acharya.—Why?

Mr. Ginwala.—Because there are six or seven companies in India who are at the moment cutting one another down. There is no reason to suppose that when the additional duty is imposed, they won't do the same thing.

Mr. Acharya.—They may not be able to go to Rangoon or our markets?

Mr. Ginwala.—Why not? They are all competing in the same markets more or less.

Mr. Acharya.—True.

Mr. Ginwala.—How is the additional duty going to help you?

Mr. Acharya.—In a way it will reserve the market in the first place.

Mr. Ginwala.—Supposing you reserve the market, if you are not going to get a better price, how would you be benefited?

Mr. Acharya.—Our works cost will be less.

Mr. Ginwala.—But then the price is much below the cost now.

Mr. Acharya.—We might enter into a combine without detriment to the consumer.

Mr. Ginwala.—That is one very great argument against protection.

Mr. Acharya.—Only when it entails a burden on the consumer and not when it does not entail a burden on the consumer.

President.—Would there never be a burden on the consumer?

Mr. Acharya.—When the internal competition is so keen, there will be no reason to think that price will go up.

Mr. Ginwala.—We want to know how you will be able to secure a better price so long as competition exists in the country.

Mr. Acharya.—We are not so keen on having a better price as on having a better market.

Mr. Ginwala.—What is the use of the better market if you don't get a better price?

Mr. Acharya.—Our works cost will go down. Supposing our works cost is now Rs. 40, if we work to our full capacity, it may go down to Rs. 35.

Mr. Ginwala.—Everybody else does the same thing, do they not, and everybody goes in for the same amount of competition. Your realised price will go down to the level of works cost and you won't get better prices.

President.—If each of the factories in India is able to increase its output by 40 or 50 per cent., the works costs should go down approximately to the same extent in the case of all. At present internal competition is so keen that the price is as low as, or less than, the works cost. If the works cost goes down, and the internal competition still continues, the price will fall also, and you will have no greater margin than before.

Mr. Acharya.—In that case we might enter into a combine having each a geographical area of supply. Suppose there is internal competition; everybody will be trying to sell at a lower price. In that case it won't entail any burden on the consumer.

President.—But how do you benefit by it? You will not have any greater margin between the works cost and the price.

Mr. Acharya.—If we enter into a combine?

President.—If you enter into a combine, are you sure that there will be no burden on the consumer?

Mr. Ginwala.—If you enter into a combine that is a very great objection to protection.

Mr. Acharya.—The combine is only to present exploitation by the consumer. We are at present in a way being exploited by the consumer. Suppose our works cost comes to Rs. 32 everybody will try to sell at Rs. 33. If we enter into a combine we will sell at Rs. 36, whereas we are at present selling at Rs. 40. In that case the consumer stands to gain about Rs. 4 and we ourselves will gain Rs. 2 or 3 more.

Mr. Ginwala.—People who enter into a combine are not generally charitable to the consumer.

Mr. Acharya.—It will not be difficult to find a remedy.

Mr. Kale.—You say that the Legislature can legislate against combination?

Mr. Acharya.—Provided it is to the detriment of the consumer.

Mr. Kale.—You say in one of the answers that you will require protection for 15 or 20 years. Do you think that many cement companies, with their costs of production as they are, and their selling price as it rules in the market, will be able to live for such a long time even in spite of protection?

Mr. Acharya.—Protection *plus* combination will do a tremendous lot of good to us.

Mr. Kale.—You want to combine for making, so to say, a geographical distribution of your production? Suppose you do it and suppose you capture a certain area and are able to increase your production on account of the increased demand, say, by about 25 per cent., you bring down your price from Rs. 45 to Rs. 35; but besides this Rs. 35, which is the works cost, you have got to provide for other things the costs of which have got to be added to that price. Unless you got that price you are not likely to live for a long time.

Mr. Acharya.—We might reconstruct.

Mr. Kale.—Some of the factories will have to go out of existence? Will you combine for that purpose and decide that factory A will disappear and factory B will continue to exist? Will combination bring about that result?

Mr. Acharya.—It will.

Mr. Kale.—Who will consent to be wiped out of existence? Do you mean to say that there will be sufficient self-sacrifice on the part of people to make it possible for them to combine? By combination you could certainly delimit the markets; but how will that benefit the industry?

Mr. Acharya.—We shall be able to produce at a reasonable price.

Mr. Kale.—You get a reasonable price, but that price will not give you a profit.

Mr. Acharya.—Why?

Mr. Kale.—What will be the price?

Mr. Acharya.—Say Rs. 40 works cost.

Mr. Kale.—What will you add to that?

Mr. Acharya.—Rs. 5 or 10.

Mr. Kale.—How much for depreciation and how much for interest?

Mr. Acharya.—If you reconstruct the depreciation would be less.

Mr. Kale.—Are you taking it for granted that, as soon as there is a combination, there will be reconstruction? What is your idea of combination?

Is it your idea that combination will result in a reconstruction of these companies? It is a very important point because you have so often spoken of a combination. So far as one can see, combination will not result in anything.

Mr. Acharya.—Combination *plus* protection is needed.

Mr. Kale.—Unless, as you say, you reconstruct the companies, protection is of no use. There must be reconstruction along with combination?

Mr. Acharya.—I agree with you. Reconstruction must be along with combination.

Mr. Kale.—With the result that some companies will disappear?

Mr. Acharya.—If they disappear they will re-appear in another form.

Mr. Kale.—One does not know that; but you cannot preserve your companies by getting protection. If you do not want to increase the price to the consumer, or if you cannot reduce the cost, you are not likely to benefit the companies, and the companies will not remain in existence for any length of time in spite of protection.

Mr. Acharya.—If we reconstruct?

Mr. Kale.—In that case you must write down your capital to a great extent. Is that an important feature of your scheme of protection?

Mr. Acharya.—It is.

Mr. Kale.—Do you then agree that unless the companies are reconstructed protection would be of no use to them?

Mr. Acharya.—Reconstruction so far as some companies are concerned.

Mr. Kale.—We do not know which companies they will be but reconstruction there must be?

Mr. Acharya.—Not in the case of all companies, but only in the case of some where there is over-capitalisation.

Mr. Kale.—So that without reconstruction protection *plus* combination won't be of any use?

Mr. Acharya.—No.

Mr. Kale.—Don't you think that 20 years is a long period?

Mr. Acharya.—No.

Mr. Kale.—In answer to Question 119 (*b*) you say "By bringing pressure on the steamship companies to materially reduce their rates of freight on cement exports, and by giving bounties if possible on every ton exported to foreign countries." The question is "What special measures (if any) do you suggest to safeguard the cement industry against underselling by reason of subsidised freights." Suppose freight are subsidised by your competitors, say, by Germany, what is the remedy to be adopted by the Indian Government? That is the question and your answer is "By bringing pressure on the steamship companies * * " I do not understand it.

Mr. Acharya.—Suppose we want to export also just as they export here.

Mr. Kale.—But that is no answer to the question.

Mr. Acharya.—By increasing the customs duty.

Mr. Kale.—But that is not your answer in the statement. You were under a misapprehension perhaps when you answered the question?

Mr. Acharya.—Yes.

III. LABOUR.

President.—You say in answer to Question 33 that you have got four imported labourers, and that the same number will suffice, even when the factory is working at full capacity. What are the duties of these four?

Mr. Acharya.—One is a Works Manager, there are two clinker burners and the fourth is an engineer.

President.—Your chemist is an Indian?

Mr. Acharya.—The Works Manager himself is a chemist as well.

President.—What is the total of the salaries and so on of these four men?

Mr. Acharya.—About Rs. 3,000 to Rs. 3,500 a month.

President.—That is something in the neighbourhood of Rs. 40,000 a year and eventually, when they are replaced by Indians, I take it that the salaries of Indians would probably be lower than that?

Mr. Acharya.—I think so.

President.—Apparently the difference does not amount to more than a few annas per ton of cement. The necessity of employing at present these four Europeans does not increase your expenditure by any very large sum. Rs. 20,000 a year, on the full capacity would be 3 annas per ton of cement.

Mr. Acharya.—Yes.

President.—You have told us in answer to question 36 that the total number of Indian workmen employed is varying according to necessity, but owing to short notice it is not possible to give average wages of different classes. Surely there must be more information than that. Can you give us the number actually employed in a particular month with the output of that month?

Mr. Acharya.—I have not got the figures here. I will send them later.*

President.—You say it is not possible to give the average wages of different classes of workmen owing to short notice. Do you think it possible that the rates would probably be about the same as at Porbandar?

Mr. Acharya.—They would be about the same.

President.—There would not be a wide difference in the rates of wages, as both places are the same part of the country?

Mr. Acharya.—No.

Mr. Kale.—You have been working only for two years and have not had sufficient time to start any system for training labour?

Mr. Acharya.—But still we are contemplating to start a scheme of training.

Mr. Kale.—What is the scheme?

Mr. Acharya.—The burning of clinker is the most important factor in the production of cement. We will take apprentices for that, give them training, give them a substantial salary at the beginning, and, if they are successful, we will give them a higher salary.

Mr. Kale.—Have you got any such scheme in mind?

Mr. Acharya.—We have, but, the present position of the trade being bad, we could not launch any scheme.

Mr. Kale.—Burning is the most important job?

Mr. Acharga.—As regards the chemist, even an Indian chemist will do.

IV POWER (INCLUDING FUEL).

President.—In reply to Mr. Ginwala's questions this morning we have covered a good deal of the ground about coal and fuel; you told us you already reduced your consumption of coal to half a ton per ton of cement.

Mr. Acharya.—Yes.

President.—Then you say you are bringing fuel from the Bengal coal fields and the C. P. coal fields. Have you got any system as to the proportion you get from Bengal and the proportion you get from the C. P.?

Mr. Acharya.—No regular proportion. For boiler purposes we get from the Central Provinces and for kiln purposes we get from Bengal.

President.—Some other firms also told us so.

Mr. Acharya.—You may take it that nearly half the coal is for the boilers and a bit more than half for the kilns.

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* Not received.

President.—Then you are using more Bengal coal than C. P. coal. Two other firms—the Indian Cement Company and the Gwalior Cement Company—said that they were using half and half. Do you mix a certain amount of C. P. coal with the Bengal coal for the kilns?

Mr. Acharya.—Sometimes we do it. We mix the slack coal from the C. P. with the Bengal coal and then grind in the coal mill.

President.—Then you say in answer to question 45 that the 'free on truck price varies from time to time. If at one time it might be Rs. 9 per ton f. o. r. pits mouth, at another time it might be Rs. 8 or Rs. 7 per ton." What is the latest price you paid in each case for Bengal coal and for C. P. coal?

Mr. Acharya.—There were three prices at the same time because we got from three parties from their collieries. The price was between Rs. 8 and Rs. 9 for the Bengal coal and for the C. P. coal it was Rs. 7-8-0.

President.—That is unusual. The difference between the C. P. coal and the Bengal coal is usually much greater than that.

Mr. Acharya.—The freight is less, but the price is the same more or less.

President.—The other firms gave us the price of C. P. coal as at least Rs. 2 cheaper than the Bengal coal. I think it was Rs. 6-8 or something like that.

Mr. Acharya.—We got it at Rs. 7-8.

President.—Either you have been lucky in the price of your Bengal coal, or you have been unlucky in the price of your C. P. coal.

When this port is finished and you are able to import your coal by sea, what do you expect the freight *viâ* Calcutta would be?

Mr. Acharya.—About Rs. 12 to Rs. 15 instead of Rs. 20 or Rs. 21.

President.—Are you sure that vessels will go from Calcutta to Dwarka sufficiently often?

Mr. Acharya.—We had two or three previously but we were confronted with the unloading difficulty.

President.—What was the rail freight from the collieries to Calcutta?

Mr. Acharya.—About Re. 1.

President.—I never heard of a freight of Re. 1 from coalfields to Calcutta It does not seem very much of a saving, if the sea freight is about Rs. 15, and the freight to Calcutta and the unloading charges would be another Rs. 3 at least if not more. It would not give much margin as compared with Rs. 20 or 21 a ton you are paying at present.

Mr. Acharya.—It will make some difference.

President.—Do you remember at the moment the total freight from the coal fields to Dwarka that you actually paid in the case of these consignments?

Mr. Acharya.—I do not exactly remember.

Mr. Kale.—In the case of the Indian Cement Company the price they paid for coal was Rs. 5-4 for the C. P. coal and Rs. 11 for the Bengal coal: your freight is about the same. So the difference between that price and your price is about Rs. 3.

Mr. Acharya.—It depends on the supply. Now the prices have gone down. We bought the C. P. coal long ago. Now we have got contracts and the price is less.

Mr. Kale.—Are these the prices of coal in stock?

Mr. Acharya.—Yes. It was purchased 8 or 10 months back.

V. MARKET.

President.—In answer to Question 50 you say " that the price has become substantially cheap as compared with the heavy prices during the war and pre-war periods." Do you consider that cement at present in India is cheaper than it was before the war?

Mr. Acharya.—Yes.

President.—Do you mean the Indian cement?

Mr. Acharya.—Yes.

President.—You say in answer to question 52, *viz.*, "Are there any markets in India in which owing to their distance from the ports you are more easily able to compete against the foreign manufacturer?" that the question does not arise as you too are situated at a port. Has foreign cement ever been landed at Dwarka?

Mr. Acharya.—No.

President.—Is there any market in which you can sell any appreciable quantity of cement to which the freight from Dwarka is lower than from Bombay?

Mr. Acharya.—Karachi.

President.—But it is also a port. I am speaking of the interior.

Mr. Acharya.—Some place in Kathiawad and Guzerat.

President.—I take it at Ahmedabad the freight from Bombay will be lower than the freight from Dwarka.

Mr. Acharya.—From Dwarka to Ahmedabad it is Rs. 9-10 per ton. I have not got the figures from Bombay.

President.—I think it is less than that.

Mr. Acharya.—I think so.

President.—That practically means that you are dependent on the markets that you can reach by sea. Bombay and Karachi are your natural markets?

Mr. Acharya.—Yes. They are the chief markets.

President.—As regards export you have already told us something about the use of barrels. Have you ever actually exported any cement of late?

Mr. Acharya.—We sent about 50 tons to East Africa.

President.—How was that packed?

Mr. Acharya.—In bags only. We gave it to one of our contractors at a special rate delivered at Arethara. He loaded it in craft and took it at his own risk. We quoted him a very low rate for export purposes only, so that our cement might be popularised in East Africa. We afterwards learnt that he made a good profit. If the question of freight is solved, we would be able to export more to Kenya, East Africa and Mesopotamia.

President.—Do you happen to know the freights to these places?

Mr. Acharya.—For Mesopotamia the steamer company quoted Rs. 25 a ton for fast steamers and Rs. 17-8 for slow steamers. To

	Rs.	A.	P.
Mombassa	20	0	0
Aden	20	0	0
Basra	20	8	0
Basra to Baghdad the freight was	14	8	0

President.—How do you think these freight rates are going to be reduced? How can Government control the freights of foreign and British Steamship Companies? How is the thing to be done?

Mr. Acharya.—Prevail upon them morally.

President.—If moral influence was of any use I should get my ticket cheaper from the P. and O. when I go home. Do you consider that with these freight rates that you have given us any export is really possible?

Mr. Acharya.—With these rates exports are impossible.

President.—In answer to question 54 you tell us that you have sold a certain amount of cement to Government at Rs. 79 a ton in 1922 and at Rs. 65 a ton in 1923. Were the rates fixed by a contract with the Development Department?

Mr. Acharya.—Yes.

President.—These are the prices you received at the factory?

Mr. Acharya.—Yes.

President.—Government have not to pay the freight to Bombay?

Mr. Acharya.—Yes.

President.—Can you tell us about this contract with the Development Department?

Mr. Acharya.—In 1921, when the prices were very high, the Development Department called for tenders asking for quotations on the basis of a certain percentage of profit. We four companies went and saw Sir L. Hepper and he said "we can give you a contract at a certain percentage of profit" and an agreement was drawn up for 10 years on the basis of works cost to be calculated according to certain methods. On that works cost they gave us 15 per cent., and on that basis Government agreed to the contract, because prices were very high at that time.

President.—Then the price is fixed for each firm separately having regard to its cost?

Mr. Acharya.—Yes.

President.—One can understand arrangements like that being made in periods of war and stress, but I am surprised that the contract was made for a period as long as 10 years.

Mr. Acharya.—They saw that the prices were very high, not only at that time but also during the last decade, and they thought they would get much better price.

President.—I have no doubt they thought so, but I think they were short-sighted. I believe the Bombay Municipality are taking legal opinion whether they could get out of the contract.

Mr. Acharya.—Now that prices have gone down, they want to get out of it, but if the prices had gone up they would have compelled us to work up to it.

President.—Is there any quantity fixed in the contract?

Mr. Acharya.—Up to 60,000 tons. But in fact the requirements have come down like anything, and this year they asked us for 13,000 tons.

President.—On what basis is the total for each year divided between the four concerns?

Mr. Acharya.—On equal basis. Suppose the Development Department want 20,000 tons for this year, each company gets 5,000.

VI. FOREIGN COMPETITION.

President.—In answer to question 57 you say "The prices realised by us are

	Rs.
1922-23	77 per ton.
1923-24	62 per ton."

I am surprised that, even with the aid of the contract, you succeeded in getting an average price as high as that.

Mr. Acharya.—The reason is this. Before this contract was entered into with Government, there was a contract running between us and the Development Department for about ten thousand tons.

President.—Of your total output for the two years, how much was sold to Government and public bodies, whether under contract or not?

Mr. Acharya.—We sold to Government about 9,000 tons; to public bodies 7,500 tons.

President.—That is in all about 16,000 tons, and the amount of cement packed during the last two years was 53,000 tons. You have only accounted for about a third of your output at this comparatively higher price.

Mr. Acharya.—Besides this we sold another 10,000 tons to Government.

President.—You now tell us that apart from the figures you have given in answer to 54 you sold 10,000 tons more to Government, but why did you not include that in the figures in answer to question 54? We asked you a perfectly definite question as to how much cement you sold to Government, and you calmly leave out 10,000 tons, as if it were nothing.

Mr. Acharya.—I regret it was through an oversight.

President.—Evidence given in this way is almost valueless. Very well, that takes you up to, say, 25,000 tons. You have still got nearly 30,000 tons to account for. This means that you have sold about 25,000 tons to Government and public bodies and you apparently received a high price for that, and something over 30,000 tons you have sold to private purchasers, is that right?

Mr. Acharya.—Yes.

President.—All I can say is that I do not understand how in 1923-24 your average price was as high as Rs. 62 a ton. Take the year 1923-24. You sold a considerable proportion of your output at the relatively high price of Rs. 65 a ton. I do not understand how, taking into account the fact that prices were low last year in the open market, your average was as high as Rs. 62 a ton.

Mr. Acharya.—During the last year the prices were not so low. It is only since January that the prices have gone down.

President.—That is not the evidence we have received so far from other concerns. However I do not want to argue further on that point because you are not in a position to answer. You say " It is rather difficult to ascertain the f.o.b. prices of imported cement." As a matter of fact there is no particular difficulty at all. They can be ascertained with comparative ease; but we have got full information from the Indian Stores Department, and it is perhaps not necessary to pursue the point.

You say in answer to question 60 that " The foreign manufacturers are selling sometimes at a very small margin of profit with the deliberate idea of capturing the Indian market." In Calcutta to-day the Indian manufacturer is selling at about Rs. 45 a ton or less, and the foreign manufacturer sells at about Rs. 55 a ton. Which of them may most justly be accused of trying to capture the Indian market?

Mr. Acharya.—Of course at present the Indian.

President.—It is impossible at present for the European manufacturer to capture the Indian market, when the Indian companies have cut their prices to the bone. The European manufacturer may be selling at a very small margin of profit, but it is not in the hope of capturing the market, but in the hope of hanging on to the tail end of the market.

President.—In answer to Question 62 you talk of " General trade boom and the consequent keen competition." For ' boom ' may I substitute ' slump '?

Mr. Acharya.—We mean on account of the boom impetus was given to start new factories.

President.—I am not aware that, as a result of a trade boom in Europe there has been an increase in the number of cement factories there, and it is absurd to say that foreign cement is entering in India at a low price because of a trade boom.

Mr. Acharya.—What we mean is that, after the boom, impetus was given to the new companies to start.

President.—What country are you referring to? Where did these new factories start? If the question had been " why is the price of cement in India so low to-day," then you were entitled to say " because of the fact that the very high price of cement led to the foundation of a large number of factories." But that is not the question; the question was " To what causes do you attribute the low prices, at which foreign cement has entered India since the war?"

Mr. Acharya.—Slump I suppose. Since in India it has happened, it must have happened in other parts of the world as well.

President.—In answer to 63 you say "whereas an importer has to pay roughly about 18 to 20 shillings per ton from London to Bombay, Calcutta, Madras, Rangoon or Karachi, we have to pay, say, about Rs. 30 per ton from our factory, say, to Rangoon." Then in the next sentence you go on to say "The railway freights, if the cargo is diverted through the interior by mean of railway, will necessarily be nearly twice this much figure and to other places possibly three to four times that much figure." That means twice or three times Rs. 30 per ton? What is the figure you are referring to?

Mr. Acharya.—Rs. 30 we have taken for Rangoon.

President.—You say if the cargo were diverted by means of railway, it would necessarily be twice that figure. Twice what figure?

Mr. Acharya.—Freight from Dwarka.

President.—Are you prepared to say that the freight from Dwarka to Madras will be as much as Rs. 60 a ton?

Mr. Acharya.—I have said Rs. 30 a ton to Rangoon. For Madras I think we have given Rs. 15 a ton. I am afraid I have not got full information, but I think it would be as much as that.

President.—In answer to 66(*e*) in the last sentence you say "The result is that the stores are 50 per cent. dearer than in the United Kingdom." Is that 50 per cent. merely a guess or based on actual figure?

Mr. Acharya.—It is only a guess.

President.—In answer to question 68 which is, "Do you consider that the Indian manufacturer of cement is at a disadvantage owing to (*a*) the distance between the sources of fuel and the areas where the raw material are found, and (*b*) the distance between the factory and the principal markets" you say "Some of the Indian manufacturers of cement are at a disadvantage owing to the distance between the sources of fuel...............". Which of the Indian manufacturers do you consider are not at a disadvantage in this respect?

Mr. Acharya.—The people at Katni and Jubbulpore are not at a very great disadvantage.

President.—That may be, but you must remember that these companies get half their coal from a distance of 100 miles and half from about 400 miles. I don't suppose in Great Britain any manufacturer gets his coal from a distance of more than 50 miles by rail, and therefore 100 miles would be regarded as a long distance in England. I quite admit that this disadvantage applies to a greater extent to some companies and to a lesser extent to other companies, but it applies to some extent to all companies.

President.—In answer to question 68(*b*) you say "This fact would not much affect the Indian manufacturer in case the freights are regulated so as to be in equality with the foreign manufacturer......". The question is not answered at all.

Mr. Kale.—Don't you think that there is what may be called a natural market fixed by your geographical position? What is that market?

Mr. Acharya.—Karachi, Bombay, Malabar and some part of Kathiawad.

Mr. Kale.—You and the Porebandar Company are the two companies which you think have identical markets?

Mr. Acharya.—Yes.

Mr. Kale.—What is your estimate of the consumption to which these two companies are restricted. Can you give me an idea of the extent of the market?

Mr. Acharya.—In Bombay we sell about 10,000 tons and in Karachi about 3 to 4 thousand tons.

Mr. Kale.—Supposing you are able to increase your production; how will you be able to dispose of your output in these markets? Do you think there will be sufficient increase in the demand when you increase your production?

Mr. Acharya.—The demand is naturally increasing.

Mr. Kale.—Your demand is, as I said in the beginning, restricted to certain natural markets. Do you think there will be appreciable increase in the natural markets for your cement?

Mr. Acharya.—We can go elsewhere, Rangoon, Madras and so on.

Mr. Kale.—That is not your natural market?

Mr. Acharya.—That is so.

Mr. Kale.—Unless certain favourable conditions arise you cannot sell in these markets, and one of these conditions is that the freight must be reduced. You do not tell us how this is going to be done. When you say that freight should be regulated, do you mean that Government should do it?

President.—Is it your idea that Government should subsidise your export of cement from Dwarka or Porbandar to, say, Rangoon by paying so much per ton: is that the idea?

Mr. Acharya.—That will be a sort of bounty.

Mr. Kale.—Government cannot say to the steamer companies that they must carry cement at a moderate rate. The only way to deal with the problem is for the Government to bear that burden.

Mr. Acharya.—Government can point out effectively the disparity between sea freight from England to India and from India to elsewhere. They can say that the latter is abnormal and does not stand to reason. It may carry some weight if Government were to take up the matter with the steamship companies.

Mr. Kale.—Will it carry any weight with you, for instance, if Government tells you to sell cement at, say, Rs. 30 a ton.

Mr. Acharya.—During the war time did not Government force us to sell cement at a fixed price?

Mr. Kale.—Do you think it is a practical proposition for Government to use its moral influence to compel the steamship companies to agree to a particular rate?

Mr. Acharya.—I think partly it may be, because these persons have got to depend upon Government in so many things.

Mr. Kale.—If Government were so powerful, many problems could be solved much more easily.

You say that cement is now cheaper than it used to be before the war. Can you give me an idea of the price before the war?

Mr. Acharya.—We were not in existence before the war, but it was about Rs. 45 to Rs. 60 per ton, and now the price is about Rs. 45 to Rs. 50.

Mr. Kale.—In the Bombay market what is the present price of cement?

Mr. Acharya.—Our price is between Rs. 40 to Rs. 45.

Mr. Kale.—What is the price of foreign cement in the same market? You say that the pre-war price was about Rs. 45 to Rs. 60.

Mr. Acharya.—Rs. 50 to Rs. 55. Continental cement can be had even at a lower price.

Mr. Kale.—The President asked you a number of questions about comparative railway freights and the sea freight. You were not able to clear up the matter. Is it your idea that the railway freight would be twice or thrice what the sea freight would be to a particular place?

Mr. Acharya.—Yes.

Mr. Kale.—That is to say, if you ship your cement from Dwarka to Madras the freight would be, say, Rs. 15, and, if the same cement were to be taken to Madras by rail, it would be Rs. 30 or Rs. 40?

Mr. Acharya.—Yes.

Mr. Kale.—What is the railway freight to Madras?

President.—Have you calculated?

Mr. Acharya.—We have got the circuitous route now.

President.—Assuming for the sake of argument that the sea freight to Madras is Rs. 12, then the rail rate will be Rs. 24.

Mr. Acharya.—That is right.

President.—Rangoon is not a good example. There is no railway connection.

Mr. Acharya.—Quite so.

VII. EQUIPMENT.

President.—In your answer to question 73, you say "The manufacturers when they supplied this plant assured us that it was sufficiently up-to-date, though we believe that due to recent improvements that have been effected in cement making machinery, we shall be at a disadvantage with the foreign manufacturer." Is that the improvement you were telling us about this morning?

Mr. Acharya.—Yes, about the burning zone.

Mr. Kale.—This morning we asked you about the supply of water, are you referring to that in answer to question 72? "The water is obtained from our pumping station at Verwala." Is all your water obtained from Verwala?

Mr. Acharya.—Yes.

Mr. Kale.—It has to be carried over a distance of three miles?

Mr. Acharya.—Yes.

Mr. Kale.—What would be the running cost per ton of cement?

Mr. Acharya.—I have not got the figures here.

Mr. Kale.—Why do you say in answer to question 70 that the manufacture of cement requires the use of elaborate, heavy and expensive machinery? Is it so very elaborate as some other manufactures? To me it appears to be comparatively simple.

Mr. Acharya.—it is not quite simple.

Mr. Kale.—As compared with other industries, it is quite simple?

Mr. Acharya.—It is not quite simple. At the time of erecting we had to import expert labour.

Mr. Kale.—It may be necessary in setting up, but not in working. It is not a complicated machinery?

Mr. Acharya.—It is not so very complicated as the iron and steel industry.

Mr. Kale.—I thought the word 'elaborate' was not rather the proper word.

Witness No. 6.

BUNDI PORTLAND CEMENT, LTD.

Agents.—Messrs. Killick, Nixon & Co.

A.—WRITTEN.

Statement I.—Replies to questionnaire (1) (a) from the Bundi Portland Cement, Ltd., dated 14th June 1924.

We have to acknowledge the receipt of your letter No. 398, dated the 21st ultimo forwarding a copy (with two spare copies) of a questionnaire which has been drawn up by the Tariff Board in connection with their enquiry into the cement industry.

2. We note the procedure which the Board has decided to follow and in sending herewith our reply to the questionnaire (with five spare copies) we have to request that the Board will respect our wish that the information submitted under the head of "Cost of Production" be treated as strictly confidential and not given out publicly.*

3. In the event of your Board requiring us to tender oral evidence, we shall be prepared to send our representative to Simla for this purpose but should prefer the examination to be fixed for any date alter the 30th June which may be convenient to the Board.

REPLIES TO QUESTIONNAIRE.

I. INTRODUCTORY.

1. Bundi Portland Cement, Ltd., or as it was then called The Bundi Hydraulic Lime and Cement Co., Ltd., was established 20th September 1913. It is a public company registered under Act No. VI of 1882 of the Legislative Council of India.

2. The Capital held by Indians in the Company is Rs. 10,44,490 out of subscribed Capital of Rs. 20,00,000, *i.e.*, 52·22 per cent. of the Capital. Out of seven Directors five are Indians. There are eight Indians employed in superior posts.

3. Manufactures cement and lime.

4. In the year 1916.

5. (*a*) 65,000 tons cement per annum.

(*b*) 24,000 tons lime per annum.

6.

	Actual Output.	
Year.	(*a*) Cement. Tons.	(*b*) Lime. Tons.
1917	19,178·493	3,495·077
1918	29,854·249	6,809·541
1919	32,740·615	630·750
1920	36,339·116	...
1921	60,100·270	...
1922	55,227·045	388·800
1923	57,055·290	157·171

7. The factory is situated at Lakheri, Bundi State, Rajputana.

(*a*) The limestone is won from a quarry close to the Works.

(*b*) The Company is handicapped by being about 800 miles from the collieries, the freight on coal being about Rs. 12 per ton.

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* This stipulation was withdrawn during oral examination.

(*c*) The interior markets of India still require a good deal of education in regard to the possibility of cement usage and the Works are far distant from the Ports which are large consumers.

(*d*) Labour supplies are adequate.

We consider the most important factors in selecting the site of a cement factory in India are close proximity to the raw materials and if possible near the larger markets.

8. Except for a small quantity of Portland cement specially adaptable for marine work, all cement manufactured is Portland cement conforming to the British Standard Specification (Revised 1920).

9. (*a*) Yes.

(*b*) The bulk of manufacture is Portland cement to the British Standard Specification and a small quantity of Marine cement to the Bombay Development Directorate's specification.

We consider the British Specification suitable to Indian conditions except that some modifications should be made in view of the higher temperatures ruling in this country.

10. (*a*) Yes.

(*b*) No.

(*c*) Reluctance on the part of Engineers in India who have been accustomed to use imported cement with a record of numerous tests both in the Laboratory and in actual use available over a long period, to make use of an article which has not yet had time to acquire a similar reputation.

II. RAW MATERIALS.

11. Limestone and Gypsum.

The limestone available in the Company's quarries is of a composition which embraces the constituents of cement.

12. (*a*) Based on present output of 60,000 tons per annum—approximately 90,000 tons limestone and 1,500 tons gypsum.

(*b*) Based on full capacity output of 65,000 tons—approximately 1,00,000 tons limestone and 1,625 tons gypsum.

13. 1·5 tons of limestone and about 45 lbs. gypsum.

(*a*) Percentage of wastage before calcining—*Nil.*

(*b*) Percentage of wastage during calcining—50 per cent.

(*c*) Percentage of wastage after calcining—1 per cent.

14. 1·5 tons of ground limestone.

15. Practically no further loss from above except from a small amount of dust escaping during grinding.

16. From a hill range situated half a mile from the Works.

17. The overburden is removed by a steam "navy" and the beds of limestone broken up by blasting, and the broken stone transported in tipping tubs to the Crushers.

18. The lease stipulates for a Royalty of Rs. 2-8-0 per 100 cubic feet of limestone to be paid to Bundi State, equivalent to about 12 annas per ton of cement.

19. (1) Re. 0-12-0 per ton.

(2), (3) and (4) Rs. ·725.

20. Mining lease on ordinary Government form in respect of limestone for 30 years with option of renewal.

Terms considered reasonable.

21. No deterioration in supply of the raw materials in regard to quality has yet been noticed nor expected.

22. We have not found the raw materials deficient in any respect.

23. We anticipate an ample supply of limestone during the full term of the lease.

(*a*) Yes.
(*b*) Yes.

24. No.
25. No.
26. No.
27. No.

28. III. LABOUR.

A. Quarry Labour.

Year.	Labour daily average.	Total wages.			Average wages per man.		
		Rs.	A.	P.	Rs.	A.	P.
1918	140	24,526	14	11	0	9	0
1919	237	41,505	2	0	0	9	0
1920	193	34,397	13	6	0	9	0
1921	381	74,461	12	0	0	10	0 (Jany.)
1922	546	1,06,577	5	6	0	10	0
1923	329	64,198	3	6	0	10	0

29. The present supply of labour is generally adequate except during certain seasons of the year.

30. Labour is indigenous and is generally available in sufficient numbers for our requirements.

31. (*a*) Only very little training required for this kind of work.
(*b*) Yes.

B. Factory Labour.

32. Skilled supervision is required at first but workmen have been and are now being specially trained in the Works. We have no imported Factory Labour at present.

33. No imported labourers are employed by us although the factory is working at very nearly fullest capacity.

34. The Company first imported an experienced Cement Burner to train the local maistries who have now attained a sufficient standard of expertness to efficiently cope with the work. Apprentices are being employed in the Workshops and trained as artificers.

35. No data available.

36. About 1,200* hands. Average rate of wage for unskilled labour Re. 0-10-0 per diem. Skilled in supervision of Mills and Kilns from Re. 1 to Rs. 3 per diem.

37.

Year.	Total wages.			Average wages per man.
	Rs.	A.	P.	
1918 . . .	1,02,459	6	5	Unskilled labour Re. 0-9-0. Skilled „ Re. 1 to Rs. 2.
1919	1,66,678	15	6	Do.
1920	1,93,112	0	0	Do.
1921	2,58,854	2	6	Raised from January 1921. Unskilled labour Re 0-10-0. Skilled „ Re. 1 to Rs. 3.
1922	2,98,043	9	9	Do.
1923	2,76,607	1	3	Do.

38. (*a*) Yes.

(*b*) Mainly from the vicinity of the Factory.

39. (*a*) Yes.

(*b*) We are informed by our supervisors that the standard of efficiency is lower than that of the hands employed in Western countries.

40. Practically all employés are housed in quarters provided by the Company, with free lighting, water, medical attention including hospital, school and recreations. Certain employés live in their own villages in the vicinity of the Works.

IV. POWER (INCLUDING FUEL).

41 and 42. The power used in the factory is electricity generated at the Company's own Power House. The cost is approximately 5 annas per unit.

43. The power is generated from a steam Turbine, driven from Babcock and Wilcox Boilers which burn coal. The battery of boilers consumes about 1,400 tons of Bengal coal per month. At times the supply of coal is restricted owing to irregular wagon supply.

44. From 2·5 to 3·4 lbs. of coal per unit generated. The variation being due to the quality of the coal available.

45. Coal both for the Kilns and the Boilers from the Bengal collieries some 800 miles away. The price varies from Rs. 6 to Rs. 12 per ton free on truck. Cost of transport about Rs. 12 per ton. The consumption in the Kilns is about 2,000 tons per month.

46. The Company does not own any source of fuel supply.

47. Does not apply to this Company.

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* Should be 461—*vide* oral evidence.

V. MARKET.

48. The total Indian production of cement is estimated as follows:—

Year.	Tons.
1915	18,000
1916	38,664
1917	73,726
1918	84,344
1919	86,814
1920	86,320
1921	128,627
1922	147,615
1923	235,229

49. During 1923 the total consumption of cement in India was about 3½ lakhs of tons.

50. The demand should slowly increase as the country develops, also as the various practical uses of cement become more widely known as the result of propaganda and the cheaper price brings it within the scope of the smaller consumers. With the disappearance of foreign cements from the markets the prejudice against Indian manufactured cement would tend to diminish which would bring about an increased demand.

51. The company disposes of the greater part of its production in the following centres. The relative distance from the Works are shown against each.

	Miles from Lakheri Works.
Delhi	253
Cawnpore	383
Lucknow	439
Lahore	551
Indore	251
Ajmer	194
Bombay	610
Ahmedabad	409
Baroda	365
Surat	355
Sukkur	718

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52. The interior markets in India are now being educated up to the greater use of Indian Cement where previously owing to distance from the Ports high costs prohibited the general use of cement. During the war supplies were frequently unobtainable; since the cessation of hostilities prices ruled high for a considerable period. It is impossible at present to give any reliable figures regarding demand from each centre, as the offtake is variable. Imported cement should really only be able to compete at or near the Ports, which are big consumers of cement. The Rail Freight to the larger towns in the interior should obviate imported cement competing to any great extent as the situation of many of the Works is nearer the larger towns than the Ports.

53. Export of Portland cement should be possible to Iraq, East Africa and Ceylon, but is improbable owing to low rates of freight from Europe enabling surplus quantities of cement from the factories there to be delivered at cheap rates at the Ports of those countries.

54. (*a*) Yes.

(*b*) Yes.

(*c*) Yes

(*i*) During the war period practically the whole output was taken by Government and only a small portion left for disposal to the public. The then existing Works were practically controlled by Government.

(*ii*)

	Government.		Railways.		Public bodies.	
	Tons.	Average price per ton.	Tons.	Average price per ton.	Tons.	Average price per ton.
		Rs.		Rs.		Rs.
1922 . . .	1,355	85	9,155	69	11,838	78
1923 . . .	423	52	5,247	58	15,665	59

During the war we received prices ranging from Rs. 42-8-0 to Rs. 70 per ton while the price of imported cement cost Rs. 80 to Rs. 250 per ton.

VI. FOREIGN COMPETITION.

55. From the United Kingdom, Germany, Belgium and Japan.

56. Practically all competition is in Portland cement.

57. (*i*) (*a*) 1912 from Rs. 45 to Rs. 50 per ton ex-Godown, Bombay.
1913 from Rs. 45 to Rs. 50 per ton ex-Godown, Bombay.
1914 about Rs. 60 per ton ex-Godown, Bombay.
(*b*) 1917 from Rs. 125 to Rs. 225 per ton ex-Godown, Bombay.
1918 from Rs. 125 to Rs. 225 per ton ex-Godown, Bombay.
(*c*) 1921, Rs. 200/150 }
1922, Rs. 150/75 } due to high freights by importing steamers.
1923, Rs. 75/55. }

(*ii*) 1917 and 1918. During this period of the war the Company's output was commandeered by the Munitions Board who paid only prices from Rs. 42½ to Rs. 55 f.o.r. Works. The control commenced in the Autumn of 1917 but was only partial until early 1918 when the whole output was commandeered; a small tonnage per mensem was released from June 1918; the control ceased in June 1919, but the Munitions Board continued to take a large tonnage until December.

1919, 1920 and 1921. We realised between Rs. 79 and 87 per ton f.o.r. Works.

1922, Rs. 76 per ton f.o.r. Works.

1923, Rs. 57 per ton f.o.r. Works.

Not having been associated with imported cement we are unable to give the details required.

58. We are aware from time to time at what rates foreign cement is selling both here and at other Ports. The information is reliable. We have also our own system of advices from London giving the f.o.b. price in sterling and the freight rate for British Portland Cement and we are aware of the customs duty and approximate landing costs in India. Some of the Chamber of Commerce Published Returns give the price of cement.

59. The prices given in the *Indian Trade Journal* are a reliable record of prices at which contracts have been placed by the Indian Stores Department and are a guide to current prices.

We find it difficult to answer the third and fourth queries, as we have never adopted the importing trade.

60. That British Manufacturers are exporting at cost or below it is admitted, and we invite a reference to the Director's Reports for the years 1922 and 1923 which we quote in our answer to question No. 62.

61. Foreign Cement competition is naturally most keenly felt at the principal Ports. But unfortunately those are themselves some of the biggest consumers of cement. Most of the Indian Works at a disadvantage owing to their distance from the principal Ports, and are further handicapped by high Railway freights. In many instances the Rail freight is higher than the Sea freight on Foreign Cement to Indian Ports.

62. Since the war Foreign Cement has entered in India owing to the depreciated continental exchanges enabling Manufacturers to sell here at remunerative prices. We quote:—

(*a*) Directors Report—Associated Portland Cement Manufacturers for year ended 31st December 1923.

" * * * * * *

> The Company's export trade which represented nearly 40 per cent. of its aggregate deliveries, was carried on at little or no profit owing to the severe competition of Continental Manufacturers who enjoyed a favourable position by reason of the depreciation of their currencies."

(*b*) Directors Report—same Company—year ended 31st December 1922.

" * * * * * *

> an increased tonnage was exported notwithstanding the difficulties experienced in overseas markets."

63. Take Bombay as an example:—

We have to pay Rs. 13-8-0 rail freight from our Works against the present sea freight of 16*s*. to 18*s*. per ton, less we believe a substantial rebate.

64. Example:—

Railway freight—Bombay—Delhi, 863 miles, Rs. 18-2-8 per ton (10 annas 8 pies per maund).

Railway freight—Lakheri—Delhi, 253 miles, Rs. 6-10-9 (3 annas 11 pies per maund).

Pies ·17 per maund per mile and 2 pies terminal.

We emphasise our reply to No. 61 that the Ports, where the competition of foreign cement is greatest are big consumers of cement, therefore the Indian manufacturer is at a disadvantage in most cases owing to the high rail freights he has to pay and the long distances to be traversed to reach the Ports.

65. We have no evidence to offer.

66. (*a*) Yes. Owing to sea freight, customs duty, handling charges and rail freight payable to Works site.

(*b*) Yes. As expert labour for construction of Works and new plant has to be brought out at high rates for a short term.

(*c*) Yes.

(*d*) No.

(*e*) Not as regards raw material but only in the case of consumable stores, particularly coal, owing to the remoteness of collieries.

(*f*) Yes. Owing to greater distances in India.

(*g*) A large stock of spare parts have to be maintained owing to the length of time in getting fresh supplies imported.

(*h*) Yes.

(*i*) Indian Capital is at present distinctly averse to industrial enterprise.

We also suffer from periodical "wagon shortage" affecting our coal supplies, necessitating accumulation of heavy stocks entailing lock up of capital and consequent loss of interest.

67. All permanent, except as regards (*i*) but little amelioration of this may be expected for years nor we fear of the necessity of keeping large stocks of coal, bags, etc.

68. (*a*) Yes, in nearly all cases.

(*b*) Yes, except in a few instances.

VII. EQUIPMENT.

69. Yes. 30,000 tons.

70. Yes. The manufacture of Portland cement is a highly technical process and requires most elaborate, intricate and expensive machinery to cheapen production.

71. About 50 per cent. of our capital outlay has been spent on plant and machinery.

72. Crushing plant by various makers.

Raw mill grinding and mixers by F. L. Smidth & Co.

2 Rotary Kilns by F. L. Smidth & Co.

1 Coal Mill by F. L. Smidth & Co.

1 Cement Mill by F. L. Smidth & Co.

1 Cement will by Edgar Allen & Co.

A single unit plant was first brought into use in 1916 and the second unit in 1920. The process used in these Works is the dry process and is a continuous one day and night. The raw material passes successively from crushers to grinding mills, mixers, thence to the Kilns, whence emerging as clinker it is finally ground in ball mills to the requisite fineness for Portland cement.

73. Yes, provided we are protected against surplus products being dumped into the country and are not unduly handicapped by high rail freights.

74. It is a fact that many minor improvements have been effected.

75. We have installed new plant and machinery from time to time to improve, accelerate and cheapen the cost of manufacture. To give a brief description would involve too elaborate a statement to be of any use but the improvements have in all respects fulfilled the expectations entertained and the Company has further developments in view.

76. (*a*) The Company has under contemplation the replacement and extensions to the crushing plant.

(*b*) The Company is also contemplating the installation of a waste heat utilisation unit, which is one of the improvements which have come to the fore in recent years.

77. It has been our custom to get all steel plate and fabricated steel work which does not require special machinery made in India in order to reduce sea freights.

VIII. CAPITAL ACCOUNT.

78 and 79. We give particulars of our property value as at 31st December 1923.

	Rs.	A.	P.	Rs.	A.	P.
(a) Purchase of Rights and Goodwill				1,60,000	0	0
(c) Buildings	10,05,534	14	11			
Less depreciation written off up to December 1923 . . .	2,01,915	3	7			
				8,03,619	11	4
(d) Plant and machinery and kilns .	27,31,442	11	11			
Less depreciation written off up to December 1923 . . .	10,57,253	5	3			
				16,74,189	6	8
(e) Water works	1,06,135	2	1			
Less depreciation written off up to December 1923 . . .	40,085	5	4			
				66,049	12	9
Tramways	6,50,208	11	3			
Less depreciation written off up to December 1923 . . .	1,34,181	8	6			
				5,16,027	2	9
Furniture and fixtures . .	67,860	9	0			
Less depreciation written off up to December 1923 . . .	18,314	0	9			
				49,546	8	3
Electric Light installation . .	78,843	15	4			
Less depreciation written off up to December 1923 . . .	17,773	12	3			
				61,070	3	1
Stores and spares at cost				6,46,696	13	9
Loose tools at cost				23,099	12	9
				Rs. 40,00,299	7	4

80. We consider the depreciation written off is sufficient.

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81. Estimated present-day cost of erecting a factory similar to this Company's plant would be about Rs. 65 lakhs.

Operating cost of a New Cement Works should be slightly less.

82. Amount spent on machinery, plant and kilns in the year—

	Rs.	A.	P.
1917	44,198	8	5
1918	2,06,029	7	1
1919	4,50,099	11	9
1920	3,38,160	9	10
1921	1,42,281	13	5
1922	1,84,838	11	7
1923	3,46,725	8	7

Remittances were made at the various rates of exchange current from time to time.

83. (*a*) Authorised Capital, Rs. 25,00,000.

(*b*) Subscribed Capital, Rs. 20,00,000.

(*c*) Paid up Capital, Rs. 20,00,000.

Authorised Capital is divided as under:—

Rs. 25,00,000 divided into 2,50,000, Ordinary Shares of Rs. 10 each.

Subscribed Capital is divided as under:—

Rs. 20,00,000 divided into 2,00,000, Ordinary Shares of Rs. 10 each.

This Company has not issued any Preference or Deferred Shares.

84. This question does not apply to this Company.

85. This question does not apply to this Company.

86. The first dividend on the shares of the above Company was paid for the year ended 31st December 1917. The following statement shows for each year from 1917 to 1923 the paid up capital, amounts distributed as dividends, and the rate of dividend:—

Year.	Capital paid up.	Actual amount of Dividends paid after deducting Income tax.			Rate per cent. per annum paid less Income tax.
	Rs.	Rs.			Per cent.
1917	12,00,000	1,40,625	0	0	12½
1918	13.50,000	3,79,687	8	0	30
1919	15,00,000	5,48,437	8	0	40
1920	15,00,000	5,53,125	0	0	40
1921	15,00.000	8,18,750	0	0	60
1922	15.00,000	4,07,812	8	0	30
1923	20,00,000	1,55,791	3	6	10

87. The average rate of dividend for the period of seven years, *viz.*, from 1917 to 1923 is 31·78 per cent. per annum less Income-tax.

88. The amount of the Debenture Loan raised by the Company is Rs. 5,00,000. It was issued as under:—

Rs. 1,00,000	On 15th June 1915.
Rs. 2,00,000	,, 1st September 1915.
Rs. 1,00,000	,, 1st November 1915.
Rs. 1,00,000	,, 8th August 1916.

It carries interest at 6 per cent. per annum and is redeemable on 30th April 1925.

No Debenture Sinking Fund has been established.

89. Reserve Fund amounts to Rs. 17,30,000. This amount has been accumulated from surplus profits.

90. We anticipate that the cost of the replacement and development schemes under contemplation will be met from Reserve Fund and not by an increase of Capital.

IX. Cost of Production.

*All information submitted under this head must be considered confidential to the Board only and on no account to be published or divulged to any rival in the Trade.**

(a) Works Costs.

91. We have completed the two Forms regarding Works Cost and enclose same in a sealed cover. The figures should be treated as confidential and not disclosed to the Public.

92. No. We have been working at approximately full capacity since we started.

93. Last year's costs were high owing to abnormal cost of coal.

(*a*) Cost of Sheets will be produced.

(*b*) does not apply.

94. We have Works Cost Sheets which we will submit confidentially, *vide* our answer to No. 91.

95. No.

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(b) Overhead Charges.

(i) *Depreciation.*

96. The rates of depreciation allowed by the Income-Tax Authorities are as follows:—

Buildings at	2½ & 5 per cent.
Water works at	5 per cent.
Machinery and plant at	7½ per cent.
Tramways at	5 per cent.
Furniture at	5 per cent
Electric Installation at	7½ per cent.
Live stock at	5 per cent.

We suggest that the rates on crushing and grinding machinery should be increased to at least 10 per cent. owing to the unusually heavy wear and tear. On buildings a minimum of 5 per cent. should be allowed owing to tendency for buildings to become obsolete and uneconomical owing to changes in the process of manufacture.

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*This stipulation was withdrawn during the oral examination.

Based on 1923 figures.

97. (*a*) Depreciation on the assets valued at cost.

	Rs.
Buildings	25,138
Plant and machinery	2,04,858
Other plant and machinery	5,913
Other assets	41,224
	2,77,133

(*b*) After deducting Depreciation written off up to date.

	Rs.
Buildings	20,090
Plant and machinery	1,25,563
Other plant and machinery	4,579
Other assets	31,581
	1,81,813

At proposed new rates given in Answer No. 96.

	Rs.
Buildings	50,276
Plant and Machinery	2,05,500
Other plant and machinery	5,913
Other assets	41,224
	3,02,913

	Rs.
Buildings	40,180
Plant and machinery	1,26,000
Other plant and machinery	4,579
Other assets	31,581
	2,02,340

98. (*a*) *Sum required annually for Depreciation at Income-Tax Rates.*

	Rs.
Buildings	57,500
Machinery	3,15,000
	3,72,500

(*b*) *At proposed new rates.*

	Rs.
Buildings	1,15,000
Machinery	3,15,500
	4,30,500

		Rs.	A.	P.				Rs.	A.	P.	
99. (*a*)	97. (*a*)	4	9	10	per ton.	(*b*)	97. (*a*)	4	4	2	per ton.
	(*b*)	3	0	5	,, ,,		(*b*)	2	12	9	,, ,,
	98.	6	3	4	,, ,,		98.	5	11	8	,, ,,

(*ii*) Working Capital.

100. (*i*) and (*ii*) About Rs. 9,00,000 and Rs. 10,00,000, respectively.

101. We have found it convenient for the Company to have a Cash Credit at the Bank in order to finance outstandings and the large stocks of coal and other stores it is necessary to maintain. At times the overdraft has been found to run as high as 12 lakhs.

102. The Company's Cash Credit with the Bank carries interest at "Bank Rate" with a minimum of 6 per cent. per annum.

103. Rs. 10,00,000 as compared with 1,75,000.

104. Average value of stock of cement held by the Company is Rs. 3 lakhs. In the past, three months has been the average normal period which elapsed between production and payment. The tendency is for this period to increase as stocks accumulate.

105. The Company finds it necessary to hold about 6,000 tons coal (two months' supply) at an average value of Rs. 1,32,000.

(*iii*) Agents' Commission and Head Office Expenses.

106. The Company's Head Office is in Bombay. The Company is managed by a firm of Agents subject to the control of the Board of Directors.

107. (1) Rs. 52,000 based on 1923 results.
(2) Rs. 73,339 based on 1923 results.

108. The Agents' commission is determined at the rate of 10 per cent. on the profits for each year.

109. (*i*) Rs. 0-13-6 per ton based on 1923 results.
(*ii*) Rs. 1-3-2 per ton based on 1923 results.

X. MANUFACTURER'S PROFITS.

110. We consider 12½ per cent. about the average required on Ordinary Shares—on Deferred Shares we should expect 30 per cent. or nothing.

111. (*a*) 7½ per cent. on Preference Shares.
(*b*) 8 per cent. on Debentures.

112. 12½ per cent.

113. (*a*) 1. Rs. 4-2-8 per ton.
2. Rs. 3-13-7 per ton.

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XI. CLAIM FOR PROTECTION.

114. We submit that the Indian cement industry satisfies the three conditions laid down by the Indian Fiscal Commission.

A. In that it has available abundant supplies of raw material suitable to make first class Portland cement. Adequate labour supply is available, and the market though existent requires development. The Industry is to some extent handicapped by the high cost of power, due to low quality coal and long distance for transport from the collieries.

B. Without the help of protection the industry will not develop so rapidly as is desirable in the interests of the country. The industry is at present passing through an acute financial crisis due to production having outstripped the demand, and should be assisted by the reservation of the entire Indian market for the Home product until the results of propaganda enable the Indian demand to be augmented. With a considerable portion of the Indian demand at present being catered for by foreign cement an additional handicap is thrown upon the struggling Indian manufacturer.

C. We submit that in the matter of quantity and quality the trade will in due course be able to face world competition, but it requires assistance until such time as the local market has developed sufficiently to enable the whole production capacity to be absorbed as it must be remembered that only by working to full capacity can Works produce on the most economical basis, and the cheaper price possible will naturally increase consumption.

115. We submit that the industry fully complies with both the conditions mentioned in paragraph 98 of the Indian Fiscal Commission Report as increased output means decreased cost of production and cheaper price to the consumer and consequent augmentation of demand by utilisation of cement in lieu of inferior materials for Works which a higher cost would prohibit. There is no doubt that the total Home demand of India for cement can be efficiently and adequately supplied by Indian Cement Works for many years to come.

116. Cement Manufacture being a Key Industry is most essential to the economic development of the country. The value of the industry to the country was abundantly proved during the Great War, and we consider that it should be protected during the period of depression which has overtaken it.

117. While there are so special features of the industry peculiarly suitable to Indian labour, it has been proved by experience that Indian labour takes kindly to it and acquires the requisite knowledge in a short time.

118. We are of opinion that a protective duty should be placed on all Portland cement.

119. A protective duty of Rs. 25 per ton to prevent foreign cement from competing with the Indian product at the Ports which are naturally consumers of considerable quantities of cement by reason of the Works in progress in many of them.

120. The industry receives protection at present owing to the present customs duty:—

(*a*) on Portland cement which is 15 per cent. on a tariff valuation of Rs. 3 per cwt. and is equivalent to Rs. 9 per ton.

(*b*) but no protection whatever is received owing to the transport charges between the country of production and the port of entry as in the most cases the rail freight from Indian Works to ports is greater than the transport charges from country of production.

121. An import duty of Rs. 25 per ton on all foreign cement in lieu of 15 per cent. on a variable valuation as at present.

We consider it essential that a protection duty be imposed in order to prevent foreign cement being landed at the ports at rates which in many instances the Indian Works cannot compete by reason of high rail freight or high sea freight.

We again emphasise our quotation from the Reports of the Cement Company—*vide supra* 62—from which it is evident that United Kingdom surplus product is being exported below cost in order to maintain production at an economic figure. Until such time as the Indian demand for cement is on a par with production no foreign cement should be allowed to add to the difficulty of Indian manufacturers.

122. It is an indisputable fact that at present the actual and potential production of Indian cement largely exceeds the consumption of the country. We calculate the potential output at end of 1924 in the neighbourhood of 5,76,000 tons. The actual output for 1923 was in the neighbourhood of 2,50,000 while the consumption in 1923 was 3,30,000 tons only inclusive of 1,03,000 tons imported cement.

If the protection requested is given the industry will benefit to the extent of increased consumption of Indian cement in place of the quantity of imported cement, and will be enabled to continue to develop the Indian market. Unless protection is afforded, some of the Companies will be unable to market their product and will be forced to close down thereby causing loss and dissatisfaction to Indian Capital, and a consequent set back to the development of the country on industrial lines.

FORM I.*

Statement showing the total expenditure incurred on the production of Cement during certain years.

	1921	1922	1923
	Rs.	Rs.	Rs.
1. Raw Materials	1,65,115	1,88,314	1,48,631
2. Factory Labour	2,58,855	2,98,043	2,76,607
3. Power and Fuel	8,75,940	9,59,029	10,33,686
4. Ordinary current repairs and maintenance of buildings, plant and machinery .	2,26,660	2,23,465	2,12,957
5. General services, supervision and local office charges	73,655	79,658	81,455
6. Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	7,17,746	5,16,044	2,67,189
7. Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure	5,74,736	5,01,267	5,09,902
TOTAL .	28,92,707	27,65,820	25,30,427
Total production of Cement for the year .	60,100	55,227	57,055

सत्यमेव जयते

*This statement was subsequently revised—*see* Statement III.

FORM II.*

Statement showing the Works Cost per ton of Cement.

	1921	1922	1923
	Rs.	Rs.	Rs.
1. Materials	2·74	3·40	2·60
2. Factory Labour	4·30	5·39	4·52
3. Power and Fuel	14·57	17·36	18·29
4. Ordinary current repairs, and maintenance of buildings, plant and machinery .	3·76	4·01	3·73
5. General services, supervision and local office charges	1·22	1·44	1·42
6. Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	11·94	9·34	4·68
7. Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure	9·56	9·07	8·93
TOTAL	48·09	50·01	44·17
Credit for materials recovered (if any) .	...	...	...
NET TOTAL .	48·09	50·01	44·17

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* This statement was subsequently revised—*see* Statement III.

Reply to Question No. 93.

Estimate of the Works cost for next year on the assumption that conditions are normal and an output is obtained equivalent to the full capacity of the plant, *i.e.*, 65,000 tons.*

	Rs.
1. Raw materials	1,48,600
2. Factory labour	2,76,600
3. Power and fuel	9,63,000
4. Ordinary current repairs and maintenance of buildings, plant and machinery	2,12,900
5. General services, supervision and local office charges	81,400
6. Miscellaneous, *e.g.*, rent, municipal taxes, insurance, etc.	2,67,100
7. Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure	5,09,900
	24,59,500

सत्यमेव जयते

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* This statement was subsequently revised—*see* Statement III.

Statement II.—Further statements submitted by Bundi Portland Cement, Ltd., dated 12th July 1924.

In continuation of our letter No. B.H.L. 67/7078 of the 10th instant, we now enclose statements * showing what it actually cost Bundi Portland Cement Limited to manufacture 57,055 tons of Portland Cement for its last financial year * * *

In disclosing our manufacturing costs to the Board we desire to reiterate our previous request that the figures be treated as most private and confidential and not made public in any manner.†

Enclosure.

BUNDI PORTLAND CEMENT LIMITED.

Actual Cost of Bags.

Cost of Bags as per contract	Rs.	38	0	0	per 100 bags.
Freight	Rs.	4	3	0	per 100 bags.
	Rs.	42	3	0	per 100 bags.
		=8	7	0	per ton of Cement (20 Bags).

सत्यमेव जयते

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*The statement showing the cost of bags has been printed, but not the other statement, as this was subsequently revised—see Statement III (e).

†This stipulation was subsequently withdrawn in the oral examination.

Statement III.—Supplementary statement, dated 3rd September 1924, submitted by the Bundi Portland Cement, Limited.

We now return duly corrected the oral evidence given by our representative before the Tariff Board at Simla on the 21st and 22nd July. The statements promised by our representatives are also furnished.

We beg to give the following additional information to certain questions:—

Evidence of 21st July.

(*a*) *Answer to Question 10.*—In support of our oral evidence we enclose copy of the Tender Form* issued by the South Indian Railway Company, Limited, and from which it will be noticed that the Railway stipulate that British Portland Cement shall be supplied.

A copy of the correspondence with the Madras Government regarding cement required for Dry Dock at Cochin was supplied at Simla. †

(*b*) *Answer to Question 51.*—We enclose two statements, one ‡ giving the distances and railway freights from our Bundi Works to the stations in our principal markets and the other§ giving the quantities of our BBB cement that was sent to each station during 1923. As requested at the time of giving our oral evidence we would ask you to treat the figures given in the *latter statement as strictly confidential.*

(*c*) *Answer to Question 61.*—The following are the comparative freight rates asked for by the President:—

(*a*) On Bengal coal to Lakheri in 1916	Rs. 8-8.
On Bengal coal to Lakheri in 1924	Rs. 12.
(*b*) On cement to Bombay in 1916	Rs. 8-15.
On cement to Bombay in 1924	Rs. 12-10-8

सत्यमेव जयते

Evidence of 22nd July.

(*d*) *Answer to Question 78.*—The President remarked that on the basis of the figures given by us the capitalisation on our output is Rs. 100 per ton. We do not understand how this figure was arrived at as if we take the total gross amount of our Block Capital (excluding the expenditure under Stores and Loose Tools, *i.e.*, Rs. 48,00,000 and divide by the full output capacity of our Bundi Plant (65,000 tons) the figure would be only Rs. 74 per ton. Perhaps you would kindly draw the President's attention to this point and that the correct figure may be inserted.

(*e*) We also enclose revised cost statements‖ and would request that these be substituted for the statements which accompanied our letter of the 14th June, and 12th July.

We think this is all the information that the Board desired us to supply, but shall be happy to comply with any further wishes they may have in this respect.

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* Enclosure VI.

† Not printed.

‡ Enclosure IV.

§ Not printed.

‖ Enclosures I and II.

Enclosure I.

FORM I.

Statement showing the total expenditure incurred on the production of cement during 1923.

(See Question 91.)

	Rs.	A.	P.	Rs.	A.	P.
1. Raw materials	85,563	0	0			
Royalty	63,293	0	0	1,48,856	0	0
2. Factory labour	...			1,75,920	0	0
3. Power and fuel	...			9,64,270	0	0
4. Repairs and maintenance .	...			2,04,438	0	0
5. General services, supervision and local office charges . .	...			1,10,926	0	0
6. Insurance	...			16,178	0	0
7. Cement packing	41,903	0	0			
Cement bags	4,81,401	0	0			
Stores and oil	1,37,876	0	0	6,61,180	0	0
TOTAL .				22,81,768	0	0
Commission on sales paid to Sub-Agents				79,369	0	0
GRAND TOTAL .				23,61,137	0	0

Total production of cement for the year 57,055 tons.

Enclosure II.

FORM II.

Statement showing the works cost per ton of cement during 1923.

(See Question 91.)

	Rs.	A.	P.	Rs.	A.	P.
1. Raw materials	1	7	11			
Royalty	1	1	9	2	9	8
2. Factory labour	...			3	1	4
3. Power and fuel	...			16	14	5
4. Repairs and maintenance . . .	...			3	9	4
5. General services, supervision and local office charges	...			1	15	2
6. Insurance	...			0	4	6
7. Cement packing	0	11	9			
,, bags	8	7	0			
Stores and oil	2	6	8	11	9	7
TOTAL .				40	0	0
Commission on sales paid to Sub-Agents .				1	6	3
GRAND TOTAL .				41	6	3

Enclosure III.

Reply to Question No. 93.

Estimate of the works cost for next year on the assumption that conditions are normal and an output is obtained equivalent to the full capacity of the plant, i.e., 65,000 *tons.*

	Rs.	A.	P.
1. Raw material	1	8	0
Royalty	1	0	0
2. Factory labour	3	0	0
3. Power and fuel	12	0	0
4. Repairs and maintenance	3	8	0
5. General services, supervision and local office charges	2	0	0
6. Insurance	0	4	0
7. Cement packing	0	10	0
Stores and oil	1	12	0
	25	10	0
Cement bags	8	7	0
	34	1	0
Commission on sales paid to Sub-Agents	1	6	0
GRAND TOTAL	35	7	0

Bombay, 8th August 1924.

सत्यमेव जयते

Enclosure IV.

With reference to Question No. 51, the following are the mileages from our works and the approximate railway freight to the stations enumerated :—

Stations.	Miles from Lakheri Works.	Railway freight per ton. Rs.	A.	P.
Delhi	253	6	10	9
Cawnpore	383	7	3	9
Lucknow	439	11	3	4
Lahore	551	15	12	0
Indore	251	7	10	7
Ajmer	194	6	6	2
Bombay	610	12	10	8
Ahmedabad	409	11	3	5
Baroda	365	10	5	9
Surat	355	10	8	0
Sukkur	718	23	15	9
Calcutta	960	17	7	3
Secunderabad (Deccan)	1,148	29	12	10

Enclosure VI.

SOUTH INDIAN RAILWAY COMPANY, LIMITED.

(Incorporated in England.)

Tenderer's Name——————————————

Full Postal Address——————————————

————————————————————

TENDER FOR THREE THOUSAND (3,000) BARRELS OF FIRST CLASS BRITISH PORTLAND CEMENT.

To be supplied at the rate of 500 barrels per month commencing from the date of delivery of the first lot.

THE AGENT,
SOUTH INDIAN RAILWAY COMPANY, LIMITED, TRICHINOPOLY.

SIR,

$\frac{\text{I}}{\text{We}}$ do hereby tender for the supply of three thousand (3,000) barrels of——————————————————(a) at the rate of Rs.——————————————————(b) per barrel containing not less than 375 pounds, delivered, free of all cost to the Company, in wagons in the Madras Harbour.

2. $\frac{\text{I}}{\text{We}}$ have carefully studied the terms and conditions detailed in the attached Notification dated the 28th June 1924, and do hereby agree to adhere to, and be bound by, them.

3. Should $\frac{\text{my}}{\text{our}}$ tender be accepted, $\frac{\text{I}}{\text{we}}$ will supply the cement to the satisfaction of the South Indian Railway Company, and $\frac{\text{I}}{\text{we}}$ promise to sign an Agreement when required to do so, and to furnish the security required in connection therewith in——————————(c).

4. $\frac{\text{I}}{\text{We}}$ have this day sent to the CHIEF AUDITOR, TRICHINOPOLY, to be held by the South Indian Railway Company as a DEPOSIT in connection with this $\frac{\text{my}}{\text{our}}$ tender, the sum of Rs. 500 which sum, in the event of failure on $\frac{\text{my}}{\text{our}}$ part to sign an agreement when called on to do so, or to furnish the security required in connection therewith, $\frac{\text{I}}{\text{we}}$ agree to forfeit to the Company, not as a penalty or penalties, but as ascertained and liquidated damages recoverable accordingly.

5. No separate communication bearing on this $\frac{\text{my}}{\text{our}}$ tender has been addressed by $\frac{\text{me}}{\text{us}}$ to you or to any other Official of the Railway, all such explanatory or qualifying remarks as $\frac{\text{I}}{\text{we}}$ desire to make having been recorded *in the space provided overleaf.*

$\frac{\text{I am}}{\text{We are}}$
Sir,
Your obedient servant,

Dated 1924.

(a) Here enter the brand of cement which it is proposed to supply.

(b) The rate should be entered both in figures and in words.

(c) Here enter Cash or Fixed Deposit as the case may be.

SOUTH INDIAN RAILWAY COMPANY, LIMITED.

(Incorporated in England.)

Notification embodying the Terms and Conditions attached to the Tender for the Contract for the Supply of Three Thousand Barrels of First Class British Portland Cement.

1. The South Indian Railway Company, Limited, is prepared to receive, up to 3 P.M. on Friday, the 25th July 1924, tenders for the contract for the supply of three thousand barrels of first class British Portland Cement at the rate of five hundred barrels per month commencing from the date of the delivery of the first lot, *vide* clause III (1) below.

Price.

II. (1) The price quoted must be per barrel containing not less than 375 pounds, delivered, *free of all cost* to the railway, in wagons in the Madras Harbour yard. All harbour dues and charges and all expenses incidental to the loading and weighing of the cement must, therefore, be borne by the successful tenderer.

(2) The barrels in which the cement is delivered will be retained by the South Indian Railway Company and *will not be paid for.*

Delivery.

III. (1) Delivery must be made at the rate of five hundred barrels per month, and the first instalment of 500 barrels must be delivered within thirty days from the acceptance of the tender. The cement will be taken over by weight in the Madras Harbour, and when conducting these weighments it will, with a view to arriving at the tare, be optional on the part of the Company's Superintendent of Stores or other Officer or Subordinate deputed by the Agent for the purpose, to have as many barrels as he shall think fit emptied, and the cost of emptying and re-filling these barrels must be borne by the successful tenderer. Such of the barrels as are found to contain less than 375 pounds will be paid for on a *pro rata* basis.

(2) The cement must be supplied in the manufacturer's own barrels, and any damaged or defective barrels will have to be repaired at the cost of the successful tenderer.

Tenders.

IV. (1) The tenders must be addressed to the Agent, South Indian Railway Company, Limited, Trichinopoly, and must reach him not later than 3 P.M. on Friday, the 25th July 1924, in sealed covers conspicuously enfaced with the words "Tender for British Portland Cement."

NOTE.—Tenders by telegraph will not be considered.

(2) The tenders must be submitted on the attached form, failing which they will not be considered.

(3) No separate communication bearing on the tender must be addressed by the tenderers to the Agent or any other Official of the Railway, and all such remarks as tenderers may desire to make in connection with the tender must be recorded on the reverse of the tender form, failing which such remarks will be ignored, *and the tender will be dealt with as it stands.*

(4) In the event of a tender being submittted by a firm, the tender must, except in the case of well known and recognised firms, be signed separately by each partner thereof, or, in the absence of any of the partners, by the person holding a Power-of-Attorney authorizing him to do so.

(5) In the case of well known and recognized firms, the person signing the tender on behalf of such firm must enter his own name in the margin, and state whether he is the proprietor of, or a partner in, the firm.

(6) Tenders which are not supported by the full amount of deposit due in the form stipulated for in paragraph V (1) will not be considered, and the Agent, moreover, reserves to himself the right to reject, without assigning reasons, any or every tender, and does not bind himself to accept the lowest or any tender. He further reserves to himself the right of accepting any tender in part.

Tender Deposits.

V. (1) With each tender must be deposited a sum of Rs. 500 which must be sent to the Chief Auditor, Trichinopoly, and will be accepted by him—

- (i) in cash paid into the Company's Headquarters Treasury, Trichinopoly,
- (ii) by Money Order, or
- (iii) in a Receipt granted by the Imperial Bank of India, for the amount paid in to the credit of the South Indian Railway Company, Limited.

NOTE.—(i) The Chief Auditor, Trichinopoly, must be advised that the amount is being deposited in connection with a tender for the supply of British Portland Cement.

(ii) No Cheques, Government Promissory Notes or War Loan Bonds will be accepted towards, nor will any interest be allowed on, Tender Deposits; and should Government Currency Notes be tendered as deposits, they will be accepted only if they are Universal ones.

(2) No deposit will be received by the Chief Auditor after 4 P.M. on Wednesday the 23rd July 1924.

(3) (i) The deposits of the unsuccessful tenderers will be returned as soon after the tenders have been disposed of as possible.

(ii) The deposit of the successful tenderer will, however, be retained by the Company as security for the execution of an agreement; and should he decline or fail to execute the Agreement within six days after its receipt by him or to furnish within the same period the security required in connection with the agreement, his deposit will be forfeited to the Company, not as a penalty or penalties, but as ascertained and liquidated damages recoverable accordingly. For the purpose of this clause, the despatch, by the Superintendent of Stores or other Officer deputed by the Agent, of the Agreement in a *registered cover* to the successful tenderer will be held to constitute receipt by the latter of the document.

Agreements and Security Deposits.

VI. (1) The successful tenderer must, within six days after the receipt by him of the document, execute an agreement on the Company's form, affixing thereto a "Special Adhesive" stamp to the value of annas twelve, and deposit with the Chief Auditor, Trichinopoly, as security for the due fulfilment of the Contract, a sum of Rs. 3,000, which may be furnished either in Cash *in which case no interest will be allowed*, or in a fixed deposit, in favour of the south Indian Railway Company, Limited, in any of the following Banks :—

- (i) The Imperial Bank of India.
- (ii) The Chartered Bank of India, Australia and China.
- (iii) The National Bank of India (Limited).
- (iv) The Mercantile Bank of India (Limited).

(2) It must be distinctly understood that should the security be furnished in the form of a Fixed Deposit in any of the aforesaid Banks it will be entirely at the Contractor's risk and that, notwithstanding that the Bank's Fixed Deposit receipt is issued in the name of the South Indian Railway Company, Limited, no risk or liability whatever either specific or implied

will attach to the South Indian Railway Company, Limited, in relation thereto.

(3) Government Promissory Notes or War Loan Bonds will not be accepted as deposits.

(4) Tenderers are requested to specify in their tenders whether, in the event of their tender being accepted, the security will be furnished in Cash, or in a fixed deposit in any of the aforesaid Banks.

(5) In the event of a firm's tender being accepted, the proprietors thereof or partners therein *must*, when executing the Agreement, communicate the names, with the specimens of the signatures, of the persons entitled to receive payment on their behalf, and give the registered address of the place of business at which, except on proper authority to pay elsewhere, all payments should be made.

(6) Copies of the Agreement which the successful tenderer will be required to execute can be obtained from the Superintendent of Stores, Negapatam, upon his remitting to him the sum of One Rupee per copy.

Payments.

VII. (1) Payments to Contractors will be made by cheques on any of the Government Treasuries in the Madras Presidency or on the Imperial Bank of India at Madras, Bombay or Calcutta.

(2) Payments by Contractors must be made to the credit of the South Indian Railway Company Limited, either with the Imperial Bank of India or to the Chief Auditor of the Railway at Trichinopoly.

B. S. SCOTT,
Agent.

AGENT'S OFFICE,
Trichinopoly, 28th June 1924.

सत्यमेव जयते

Statement IV.—Letter, dated 8th January 1924, from the Bundi Portland Cement Limited, replying to Questionnaire (1) (b).

We regret the delay in replying to your letter No. 1273 of the 22nd November 1924 but it has taken some little time to extract the necessary details from our records.

We now beg to enclose herewith a statement* giving the information required in connection with despatches and output of Bundi cement for the years 1921, 1922 and 1923 and the first six months of 1924. We thank you for your assurance that this information will be treated as confidential.

With regard to the query in paragraph 3 of your letter as to why the cost of Power and Fuel (Coal) should differ in Form II to the figures given in Section IV representing the cost *plus* freight on coal, the answer is contained in your sub-paragraph 1, *i.e.*, the coal consumed in 1923 was contracted for at a time when coal prices were higher than they were in 1923. No other expenditure is included under this item in Form II.

With regard to your remarks about the question of packing in barrels, we should not like your Board to come to the conclusion that none of the Indian Cement Companies had thought it worth while to ascertain definitely what the cost of such packing would be—neither would it be right for your Board to form such an opinion. We would explain that we have good reason to say that the Agents of other Indian Cement Companies like ourselves have been giving this question their earnest consideration for some time past, but the difficulty we are all faced with is the heavy capital outlay which the erection of a suitable plant would necessitate, and in the present state of the Cement Industry funds for such capital expansion are not available. It is also questionable whether indigenous timber of suitable quality can be obtained at a price to make the proposition an economical one, but on this point and also the alternative of importing barrel staves from North Europe, we have not concluded our investigations.

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*Not printed.

सत्यमेव जयते

Statement V.—Further Supplementary Statements submitted by Bundi Portland Cement, Limited, dated 4th February 1925.

In compliance with your D. O. letter No. 18 to Mr. Annesley of the 8th ultimo we have the honour to enclose herewith a statement giving the information required and also the cost statements referred to in items 5 and 6. We beg to request that the latter statement which we have marked "Confidential" may be so treated and not included for publication.*

2. We also return herewith the proof copy of the oral evidence which was enclosed with the letter.

3. We would draw your attention to an apparent omission at the beginning of the record of evidence for the 2nd day. According to Mr. Annesley's recollection prior to the President resuming the examination Mr. Annesley referred to what had transpired at the close of the previous day's sitting and said that after consulting his colleagues they had decided that all figures, statements of cost, etc., which they had put in, might be published and that they withdrew their previous stipulation to the effect that these should not be made public.

4. We think a paragraph inserted on the above lines would make the evidence read much better.

Enclosure No. I.

Serial No. 1. Capital cost attributable to lime production is not worth considering as the production of lime is not very considerable.

The cost of the kiln erected many years ago was only small originally.

Serial No. 2. Aggregate salaries of 7 Europeans employed in superior posts is Rs. 58,725 per annum.

Serial No. 3. Total profits in 1920, 1921, 1922 and 1923 are as follows:—

	Rs.	A.	P.
1920	6,64,734	8	0
1921	8,91,950	12	9
1922	4,52,355	15	8
1923	1,81,271	5	2

Serial No. 4. The difference of Rs. 437 in reply No. 97 is represented by 2½ per cent. additional depreciation asked for in respect of Crushing Plant whereas the relative difference in reply No. 98 is due to our having asked for depreciation on buildings to be doubled but for the bulk of our machinery no increase at all.

Serial No. 5. A copy of the statement of estimated future costs is attached herewith.

Serial No. 6. Specimen of Cost Sheet for one month is attached herewith which please treat as *confidential*.*

Enclosure No. II.

BUNDI PORTLAND CEMENT, LTD.

Reply to Question No. 93.

Estimate of the Works Cost for next year on the assumption that conditions are normal and an output is obtained equivalent to the full capacity of the plant, *i.e.*, 65,000 tons.

	Rs.	A.	P.
1. Raw materials	1	8	0
Royalty	1	0	0

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* Not printed.

	Rs.	A.	P.
2. Factory labour	3	0	0
3. Power and fuel	12	0	0
4. Repairs and maintenance	3	8	0
5. General services, supervision and local office charges	2	0	0
6. Insurance	0	4	0
7. Cement packing	0	10	0
Stores and oil	1	12	0
	25	10	0
Cement bags	8	7	0
	34	1	0
Commission on sales paid to Sub-Agents	1	6	0
GRAND TOTAL	35	7	0

Statement VI.—Further supplementary information submitted by the Bundi Portland Cement, Limited, dated the 2nd February 1925.

We have the honour to acknowledge receipt of your telegram of the 31st ultimo and enclose herewith copy of our reply thereto giving you the following information:—

	January/December 1924.	
	Output. Tons.	Despatches. Tons.
Bundi Portland Cement, Limited	54,604	61,232

सत्यमेव जयते

BUNDI PORTLAND CEMENT LIMITED.

B.—ORAL.

Oral evidence of Messrs. F. C. ANNESLEY, E. C. REID and E. CHRISTENSEN, recorded at Simla on 21st July 1924.

President.—I notice that you are equipped to manufacture both cement and lime?

Mr. Annesley.—Yes.

President.—But since 1918 the output of lime has been negligible?

Mr. Annesley.—The difficulty was coal.

President.—In 1920-21 the production was *nil*, and in 1922 and 1923 less than 4,000 and 2,000 tons respectively. Does that mean that the output of lime has ceased to be of much importance?

Mr. Christensen.—We are hoping to get into the market again for hydraulic lime.

President.—Is not the hydraulic lime required for large public works frequently manufactured at site by the people who are carrying out the work? If that be so, is it likely that the manufacture of hydraulic lime as a separate industry would amount to very much?

Mr. Christensen.—No, not very much.

President.—It would never be more than a side show?

Mr. Christensen.—Yes, that is so.

President.—The only real importance of this is that it may not be fair to debit the whole of your capital cost to the production of cement.

Mr. Christensen.—The lime trade is very small as compared with the cement, and for the last two years it has stopped altogether. Time and again since 1918 we have tried to get into the market, but we found it very difficult to get a demand. The capital cost of the lime plant has been very small.

President.—I will refer to the point again later on. Possibly you may be able to give a percentage estimate of the proportion of your capital cost attributable to lime and to cement respectively?

Mr. Christensen.—Yes.*

President.—In answer to Question 7 (*b*) you say "The company is handicapped by being about 800 miles from the collieries, the freight on coal being about Rs. 12 per ton." That comes to about 2·88 pies per ton per mile and about one-tenth of a pie per maund per mile.

Then in answer to Question 10 you explain the reason why the price of Indian manufactured cement tends to be lower than the price of imported cement, and you allude to the reluctance on the part of engineers in India, who have been accustomed to use imported cement, to purchase Indian cement. Is your cement tested at your own factory or is it also tested by the Indian Stores Department?

Mr. Christensen.—It is tested regularly by the Test House at Alipore, and from time to time by the best known firms in England.

President.—Have the tests been satisfactory?

Mr. Christensen.—Yes, invariably so.

President.—What action do you take to advertise your cement? After all, it is up to you to overcome any prejudice that exists.

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* Statement V, Enclosure I.

Mr. Annesley.—We are doing that as far as we can. For instance, when we were up here last year we interviewed the Engineers in charge of the Sutlej Valley Project and eventually got them to use our cement instead of lime manufactured on the spot. We moved part of our laboratory up here in order to conduct tests with different proportions of cement, sand, etc., in front of the Engineers so that they should have no doubt as to the test.

President.—That is hardly the point. The point at issue there would be mainly the question of cost as between lime and cement. The point we are on just now is the prejudice that some engineers have in favour of imported cement, and it is that prejudice which you have to overcome. This prejudice exists, I understand, chiefly in the ports and not up-country?

Mr. Annesley.—Yes.

President.—What measure have you taken to try to overcome that?

Mr. Annesley.—We publish pamphlets giving the tests and all particulars about the cement.

President.—To whom do you send these?

Mr. Annesley. To all engineers, contractors and likely buyers. We have our own European canvasser. We also have several Indian canvassers to go round to smaller buyers.

President. I think it is important, because when you have a good case, advertisement ought to do a great deal.

Mr. Annesley.—We send them calendar blotting papers as advertisement, specimens of cement, and so on. We have pamphlets in the vernacular, and adhesive stamps, and in our correspondence with prospective buyers we attach one of these to catch their eye. The question of propaganda is seriously undertaken by us. As the Indian public more and more realises that the cement advertised is suitable, they are coming in to use it more and more in various ways. But I am afraid that with engineers there is sometimes reluctance to use it.

President.—It is very largely at the ports, is it not?

Mr. Annesley.—Particularly at the ports. I may mention in this connection that our buyers would rather buy Bundi cement in preference to our Punjab cement. There is really no difference between the two. Bundi has made its name, and they prefer to have that because it has its name established. It will take a little time for the Punjab cement to be known.

President.—That is interesting, because it indicates that it is not really a national question, so to speak, at all. It is just a question of getting a well-known article with an established reputation?

Mr. Annesley.—Yes. An engineer of considerable standing is not likely to make use of an article which he does not know much about, and risk his reputation. That has got to be overcome by the cement getting known.

President.—There is this to be said that your company was working during some of the war years when the import of foreign cement was negligible, so that you had the advantage of having a considerable experimental period during which time you had an opportunity of getting the merits of your cement known.

Mr. Annesley.—Yes.

President.—During the war, it is true, Government was taking a high proportion of your output, but in the years that followed the price of imported cement continued very high, and there was an opportunity to popularize your cement with the ordinary consumer.

Mr. Annesley.—On the question of reluctance on the part of engineers to buy Indian cement, I can give you one or two instances. In the case of a recent tender called for by the South Indian Railway the Indian manufacturer was not called upon to tender at all.*

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* See Statement III (*a*) and enclosure thereto.

President.—The only explanation that suggests itself to is that the South Indian Railway is very remote from all the Indian factories.

Mr. Annesley.—Working on the Calcutta Port Commissioner's figures, English cement costs about Rs. 59 f.o.r. Kidderpore. We can tender for that cement f.o.r. Lakheri, at Rs. 30 and with railway freight from the works, at Rs. 25 a ton. We would rather get rid of the surplus production that run into stock: there is no profit of course.

Mr. Ginwala.—Would you consider it worth while capturing that market if you were allowed to tender?

Mr. Reid.—Just before we left for Simla we sent money for a tender form but it had not arrived before we left Bombay.

President.—It seems absurd that Indian firms should have no opportunity of tendering, even although in the extreme south of India imported cement has the better chance. What is the other instance you wished to bring to our notice?

Mr. Annesley.—It is about the cement required for the construction of a dry dock at Cochin. We asked through our Agents to be allowed to tender but were not allowed to do so. Subsequently on making further investigations the Government of Madras stated that, as it was necessary that the cement should be of British standard quality and manufacture, no quotations for cement of Indian manufacture were called for. Further that it was essential that the cement used should be of British manufacture as it was required for work exposed to saline action. We have since explained that our B.B.B. cement is eminently suitable for such work and it is in fact used exclusively by the Bombay Development Directorate for use on their Back Bay Reclamation Wall.

Mr. Ginwala. Is it from the Secretary to the Government of Madras?

Mr. Reid.—Yes. We asked our agents to take it up with the Government.

President.—It would be useful if you could send us a copy of the correspondence, because this is the first evidence that there has been this prejudice against the use of Indian cement on the part of Government engineers.

Mr. Annesley.—We will send copies to you.* We had another instance of an engineer holding a superior position who admitted that he was prejudiced against Indian cement on the ground that it was not well known, and that it would not stand the effect of sea water after a certain number of years. We have supplied to the Development Department for use in sea water a specially manufactured cement.

Mr. Ginwala.—Has it not been washed out?

Mr. Annesley.—No. Certainly not! In the case of the Sambar Salt Lakes where the water is very salty there are some concrete posts made with our cement that have withstood it for a number of years, and we put that up as a case that our cement can stand sea water, because these are very much worse conditions than ordinary sea water.

President.—Yes, that is a very strong case no doubt.

Mr. Ginwala.—In answer to Question 2 you say that there are eight Indians employed in superior posts. Do you mean in the works or is it in the management?

Mr. Annesley.—In the works.

Mr. Ginwala.—How many superior posts are there altogether in the works?

Mr. Christensen.—The number of staff is about 40 and out of that the Europeans amount to 6, and the 8 Indians we have in superior posts are people who can be relied on; they have a certain amount of responsibility in connection with the operation of the plant.

Mr. Ginwala.—Are these expert posts or what?

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* Not printed.

Mr. Christensen.—It requires special training to take over the work, *e.g.*, shift foremen, assistant engineers or assistant chemist, etc.

Mr. Ginwala.—Is your principal chemist a European?

Mr. Christensen.—Yes.

Mr. Ginwala.—Is it difficult to obtain a qualified Indian for that post?

Mr. Christensen.—It requires a fair training in the cement line before he is able to take up the job.

Mr. Ginwala.—Are you training any Indians?

Mr. Christensen.—We always have an assistant chemist in our place, but unfortunately Bundi being an old Company, time after time we have to give up our assistant chemist as soon as a new company is started. We have never had a chance of keeping him for long.

President.—That, of course, is a distinct drawback in your case.

Mr. Annesley.—The same thing applies to trained burners. We have trained quite a number in our Works but we always lose them. In fact when we visited other cement works we have often found our old men employed there.

Mr. Ginwala.—Are your works the oldest in India?

Mr. Annesley.—The Katni Cement Works are a few months older. The Madras Cement Works are really the first cement works in India.

Mr. Ginwala.—What is the main difference between marine cement and ordinary cement?

Mr. Christensen.—The marine cement is lower in alumina and also lower in gypsum.

Mr. Ginwala.—What effect do these produce?

Mr. Christensen.—To answer that question fully would take a long time and involve highly technical explanation, but briefly the action of sea water on the alumina produces a new substance in the cement that tends to burst the concrete. For many years experiments have been carried on and results nave been obtained as to which cement is the most suitable.

Mr. Ginwala.—Is there a known marine cement specification like the British Standard Specification or is it for the engineer to prescribe his own specification?

Mr. Christensen.—In France and in other countries they lay down certain rules for cement to be used in sea water.

Mr. Ginwala.—In Great Britain have they got any prescribed specification?

Mr. Christensen.—No. Each individual engineer puts his own specification, I understand. To the Bombay Development Board we guaranteed to supply cement to a specification of their own.

Mr. Ginwala.—Is there much demand for the marine cement?

Mr. Christensen.—Any cement used in sea water ought to be marine cement.

Mr. Reid.—The Bombay Development Board took 6,600 tons of our marine cement last season and they are taking, as far as we know, 4,500 tons this season.

Mr. Ginwala.—The point is that a good deal of the cement imported might be marine cement. We want to find out whether that is not so. Is much marine cement imported?

Mr. Christensen.—Generally speaking, as long as the engineer gets English cement, he does not particularly specify marine cement.

Mr. Ginwala.—Do you mean to say that it may be one way of getting rid of having to say that they do not want to use your marine cement?

Mr. Christensen.—I understand ordinary cement is used in a number of docks in India.

Mr. Ginwala.—Of course in the Trade Returns they do not separately classify marine cement, so that what I really wanted to know was whether there was really a large import of that.

President.—Bombay would probably be much the largest user of marine cement. I don't think the Hooghly is appreciably saline.

Mr. Christensen.—That is so.

Mr. Ginwala.—Are you the only firm which manufacture marine cement? Is there any technical difficulty about the manufacture of marine cement?

Mr. Christensen. No, except that in the manufacture one has to take care that the gypsum and alumina are kept within certain limits and in suitable proportions to stand sea water. In certain places in India it may not be possible to manufacture this type of cement.

Mr. Annesley.—It depends on the raw materials.

President.—Do you mean that the raw materials in certain parts of India would be more suitable for marine cement than in other parts?

Mr. Christensen.—The question of alumina is the main point and as already mentioned in making the cement you have to take care also that gypsum is kept within certain limits.

President.—It is possible, I gather, that a cement manufacturer might find it difficult to manufacture this cement, because his raw materials contained too much alumina.

Mr. Christensen.—Yes.

President.—Is it more expensive to make this cement?

Mr. Christensen.—Yes.

Mr. Ginwala.—Supposing the whole of the imported cement was marine cement, say at the ports, could the Indian manufacturer supply the whole lot at reasonable rates?

Mr. Christensen. I should think so.

Mr. Ginwala.—As regards the tests, do you refer to the higher temperature when the test is made or the climatic temperature generally?

Mr. Christensen.—The temperature of the kilns during manufacture is the same whether cement is made in India or elsewhere.

Mr. Ginwala.—I am speaking of the temperature at the time of testing and not at the time of manufacture.

Mr. Christensen.—It varies from 100 to 80 degrees. The British Standard Specification lays down that the cement is to be tested at a temperature of about 60 degrees.

Mr. Ginwala.—The temperature that you refer to in your written statement is the temperature at the time of testing?

Mr. Christensen.—Yes. It is important that the test should be carried out in the same temperature as at the time of practical work.

Mr. Ginwala.—What difference does it make in the result if the test is made in a lower temperature?

Mr. Christensen.—The cement which has been passed at low temperature may fail entirely when it comes out here and is used under Indian conditions. From the beginning we conducted our tests at a higher temperature so as to be able to use the cement in India.

Mr. Ginwala.—Do you mean to say that in comparing your cement with the British cement, engineers do not make sufficient allowance for the difference in temperature at the time of the test?

Mr. Christensen. It is important that the cement should be tested under Indian conditions, and particularly the imported cement. There is no guarantee that the cement which has passed at Home will be suitable here. That is one of our strong points.

Mr. Ginwala.—Then that is a point in your favour?

Mr. Christensen.—It is.

Mr. Ginwala.—But you have stated it here as an objection.

Mr. Christensen.—No. We only claim that the British specification is quite suitable for India except that there must be some difference in the temperature clause because of the higher temperatures ruling in this country.

Mr. Ginwala.—Have you got any authority in India which can fix specifications?

Mr. Annesley.—There is the Government Test House at Alipore.

Mr. Ginwala.—That is only a department of the Government. Who fixes the British specification?

Mr. Annesley.—There is a committee for it.

Mr. Ginwala.—We have not got a corresponding authority here.

Mr. Annesley.—There is now a committee considering the question of alterations in the specification.

Mr. Ginwala.—It must be a committee which would carry authority with the engineering profession in the country.

Mr. Annesley.—Mr. Musgrave of the Government Test House at Alipore and the Engineering Association have called a committee together. Each of the cement works has a representative on that committee, and the engineers in different parts of the country have been called in to give their opinions.

Mr. Ginwala.—You require a body which represents more the consumer's interests really speaking, because he is the person you have got to get at and he must be satisfied with the specification. Now what we want to know is what body can be constituted which can modify the specification, and at the same time give satisfaction to the consumer?

Mr. Christensen.—I understand that this committee will make recommendations to the Home committee.

Mr. Ginwala.—That is not my point. My point is different and it is this. In India you must have some authority which can modify the specifications. Well, at present, there is no such authority in this country. You have got an Engineering Association, but then the Government engineers will say "we don't care what the Engineering Association say: we don't agree with them." At the ports, they have their own engineers. They may say "it is immaterial to us what the Engineering Association say: we want such and such specifications." Unless you have got some body representing all these interests, it will not be of much use. So long as there is no such organisation, the attempt at a change will be in a haphazard fashion.

Mr. Ginwala.—With reference to your answer to Question 10 as regards the prejudice against the Indian manufactured cement, are the three instances that you gave the only ones that you knew of?

Mr. Annesley.—We have given you the instances we do know of . . .

President.—That there is a general opinion, shared by many engineers, that they prefer to use the article which has always given good results in the past, I have not the least doubt. In some cases, it is a prejudice, but I think that in other cases it may be something more respectable than a mere prejudice.

Mr. Ginwala.—You must be dealing with a number of private engineers, contractors and so on. Has the Indian consumer as such, in building houses, a prejudice against the Indian cement?

Mr. Annesley.—I don't think so I don't think that the small consumer of the contractor has any prejudice.

Mr. Ginwala.—I was not thinking of the small consumer, but the big contractor.

Mr. Annesley.—With the big contractor it is more a question of price.

Mr. Kale.—Will you tell me when and why you changed the name of your company?

Mr. Annesley.—It was originally the intention to go in for natural cement. That was the outcome of the early reports from certain engineers, and the prospecting reports we received that natural cement could be manufactured very cheaply. But on going into the matter later, we found that it would be very difficult to introduce natural cement against the known Portland cement, and the cost of manufacturing natural cement was not very far from what we estimated the cost of manufacture of Portland cement to be. We found that it would be much more satisfactory to manufacture Portland cement straight off, and drop the idea of manufacture of hydraulic cement. Consequently the name was a misnomer.

Mr. Kale.—Did you think that the raw materials were much more suitable for hydraulic lime?

Mr. Annesley.—They were very suitable for hydraulic lime.

Mr. Christensen.—We have got a range of hills of different raw materials at our place—25 miles in length.

Mr. Annesley.—Moreover, the men we brought out from England were all interested in Portland cement, and they naturally wanted us to start the manufacture of Portland cement.

Mr. Kale.—Is there any advantage in manufacturing lime along with Portland cement? Is it more economical to have both side by side?

Mr. Annesley.—I should describe it more or less as a side line. There is no connection between the two processes.

Mr. Kale.—I thought that perhaps the side line might act favourably on the production of your cement by reducing its cost.

Mr. Annesley.—It does not affect the production of cement. It is not a bye-product at all. It is more or less a separate unit.

Mr. Kale.—But your accounts are kept together. They are not separately kept, are they?

Mr. Annesley.—We always keep them separately.

Mr. Kale.—I was asking the question because I thought that the production of lime might perhaps in one way or another reduce your cost of Portland cement.

Mr. Annesley.—It could not reduce the cost of Portland cement.

II. RAW MATERIALS.

President.—Am I correct in understanding from your answer to Question 11 that your limestone contains all the ingredients required and that practically you have not got to use clay?

Mr. Christensen.—We use no clay. The limestone has got different ingredients and we mix it in proper proportions. As explained in our written statement we have got limestone which is suitable for lime as well as limestone for cement. We mix the high and low grade stone and get the right proportions.

President.—That is to say, you draw your limestone from different parts of your quarries and mix them in certain proportions?

Mr. Christensen.—Yes.

President.—In your answer to Question 16, you tell us that your limestone comes from a hill range situated half a mile from the works. How far distant is the furthest point in that range from your works?

Mr. Christensen.—Our present working is practically concentrated at one spot.

President.—Where do you get your gypsum from?

Mr. Christensen.—From Jodhpur.

President.—From what distance have you got to bring it?

Mr. Christensen.—I believe it is about 200 miles. The gypsum that we get from the Salt Range is kept as a stand-by.

President.—What would be the freight on gypsum brought from there?

Mr. Annesley.—I am afraid we have not got the details here.

President.—The point is not of great importance because, owing to the percentage of gypsum being low per ton of cement, it cannot amount to anything tangible.

Mr. Annesley.—No.

President.—Do you convey your limestone on a narrow gauge line?

Mr. Christensen.—Yes, a 2 ft. line.

President.—Is it drawn by steam engines?

Mr. Christensen.—Yes, small engines and partly by mules.

President.—In answer to Question 23, you anticipate that as time goes on the cost of raw materials will increase. You have only said "yes." Have you any sort of information as to what the increase is likely to be?

Mr. Annesley.—With the expansion of the industry, the cost will naturally increase.

President.—You have given in answer to Question 19 the royalty per ton of cement. That won't increase. You have also given the other costs (labour, freight and miscellaneous charges) as Re. ·725 per ton. It is only the second item that could be affected by the increase in costs. Can you put a limiting figure on the possible increase?

Mr. Annesley.—If we have the same labour costs, it would be about 10 per cent.

President.—All that I am trying to get at is whether this anticipated increase is likely to be formidable or only small.

Mr. Annesley.—Very small.

President.—The greater your output is, the more rapid will be the increase. That is obvious.

Mr. Annesley.—Yes.

Mr. Ginwala.—What is your opinion as to the permanence of your raw materials? Of course you have got your own supply. How many years' supply is it?

Mr. Christensen.—It is a big range. We have a lease covering 25 miles of it. The supply will last for 1,000 years. That is to say, the supply is unlimited.

Mr. Ginwala.—That is one of the points we have got to consider. It is not what you have actually got, but what the possibilities are. Supposing the industry develops pretty fast, will the raw materials be exhausted?

Mr. Christensen.—No, there is an unlimited supply.

Mr. Ginwala.—It is a quarry, is it not?

Mr. Christensen.—Yes.

Mr. Ginwala.—It certainly does destroy to a very large extent the value of the land for other purposes, does it not?

Mr. Annesley.—No. It is on a steep hill side.

Mr. Ginwala.—I don't know what the position is here. But I have seen in other places where they excavate barrow pits for making bricks.

President.—I understand that you only work on the hill side, and you don't go below the level?

Mr. Annesley.—There is no arable land there. We are working on the hill side.

Mr. Ginwala.—Do I understand you aright when I say that the land cannot be used for any other purpose except for lime quarrying?

Mr. Annesley.—It has not been used so far for any other purpose.

Mr. Kale.—Referring to the question which has just been discussed, I want to know how you came upon the quarry first of all?

Mr. Annesley.—It was in the course of construction of the Nagda-Muttra Railway that some engineers working on culverts and bridges noticed first the exceptionally good qualities of the local lime. I presume that there had also been a certain amount of local lime burning. They noticed it and gradually got on to this particularly good deposit.

Mr. Kale.—It often happens that some of these quarries are being worked in the old fashion by villagers and so on, and that attracts the notice of other people. Was the quarrying going on before you came upon that material?

Mr. Annesley.—I am afraid I cannot answer that. I don't think that anything was going on to any appreciable extent.

Mr. Christensen.—Perhaps there was some burning of lime on a small scale and that was all.

Mr. Kale.—So that, that material was not used on a very large scale or even on a small scale?

Mr. Annesley.- I don't think so.

Mr. Kale.—You tell us that the composition of your raw materials varies from place to place or from spot to spot. Does not that involve difficulty in mixing every time? Is that not a disadvantage?

Mr. Christensen.—The expert chemist has to analyse it from time to time. He has also to keep an eye constantly on the mixture to see that it is correct. Before mixing the raw materials, we take samples and test them carefully.

Mr. Kale.—Do you think that this disadvantage is counterbalanced by the advantage that you have got in your lime and your clay together?

Mr. Christensen.—If we had pure limestone and clay we would still have to take care of the mixture, but a constant check on the quarry stock would not be so necessary in that case.

Mr. Ginwala.—Is the raw material consistent all over?—I mean as to its chemical property.

Mr. Christensen.—Fairly consistent but it is not easy to answer that question. We have the quarry divided up into various sections and we have got to analyse them and take numerous samples and compare the results.

Mr. Ginwala.—So that a considerable amount of expert supervision is necessary in the quarry?

Mr. Christensen.—Not in the quarry, but in checking the quarry strata. That has to be done before we actually notice any variation; otherwise from time to time our cement would vary in composition.

Mr. Ginwala.—Supposing you made a mistake at the quarry, can that be rectified afterwards in the process of manufacture?

Mr. Christensen.—No. Once the materials came to the mill it would cause endless confusion and in case that happens it would require looking into immediately. It can be rectified when it is in the raw material stage, but not afterwards.

III.—LABOUR.

President.—In answer to Question 28 you have given figures of average wages of unskilled labour since 1918. The increase in wages in the case of this class is very small.

Mr. Christensen.—They are local people from the district and are paid well above what they would obtain anywhere else.

President.—I notice that the figures for the labour force in the quarries varies markedly. There was a big jump in 1922 when the production was actually lower than in 1923.

Mr. Christensen.—At that time an ample labour supply was available. In fact I believe there were more or less famine conditions in the district and we then started development work.

President.—You might have done some extra quarrying to keep labour engaged.

Mr. Christensen.—Yes, people came and begged for work and we did what we could for them.

President.—Then you say in answer to Question 29 "The present supply of labour is generally adequate except during certain seasons of the year." Do you mean agricultural work during the harvest season?

Mr. Christensen.—Yes: also the wedding season interferes with our labour.

President.—Does that appreciably affect your output, or can you arrange so that you get a considerable quantity of limestone in hand.

Mr. Annesley.—We have never been short of raw material.

President.—Then it probably affects you in this way that your stocks of raw material would probably be higher which means an increase in the working capital. After all it does not amount to very much. In answer to Question 32 you say "We have no imported factory labour at present." That means that you distinguish factory labour from the supervising labour. In the labour section you have got no imported men?

Mr. Annesley.—No.

President.—But you have got imported labour in the supervising branch.

Mr. Annesley.—Yes.

President.—Did you not say that you had six Europeans?

Mr. Christensen.—Yes. One chemist, two mechanical engineers, one mechanical assistant engineer and one electrical engineer: I am the sixth man and, if you take the office man too, that makes seven altogether.

President.—The point I want to get at is the increase in cost entailed by employing so many Europeans. It would suffice if you could indicate to what extent the aggregate salaries of these men would probably be lower if the appointments could be filled by Indians.

Mr. Annesley.—Some of the posts could not be held by Indians.

President.—The point is this. In so far as you have to employ these Europeans you are at a disadvantage as compared with manufacturers in other countries, because the wages of Europeans in India would be higher than those of persons holding corresponding positions in their own countries. All I am trying to do is to put a figure on it. Supposing the aggregate salary of these men were Rs. 84,000 and supposing you were paying on the average twice as much as they would be drawing in their own countries, that would be Rs. 42,000 extra cost you are incurring. That would be about two-thirds of a rupee on an outturn of 60,000 tons. That is the kind of figure I want.

Mr. Annesley.—The figure would be about double.

President.—We should like to have the aggregate salaries of these seven men per annum.

Mr. Annesley.—We shall give you that to-morrow morning.* I want to emphasize this. Some of these posts could not be filled by Indians. If they are, we shall be running short of men with experience, and we cannot risk the works going wrong and the quality of the cement being damaged by inexperience.

President.—I do not understand that. When the factory began work in 1916 you were working a single unit plant.

Mr. Annesley.—Yes.

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* Statement V, Enclosure I.

President.—What I was going to ask you was how many Europeans you employed when you started, and have you been able to make any progress since you started in substituting Indians for Europeans?

Mr. Annesley.—We had a cement burner who was English. We had five Europeans for the single unit and now we have seven for the double.

President.—One of these five was a burner?

Mr. Annesley.—Yes.

President.—That has been entirely eliminated?

Mr. Annesley.—Yes. All our burners are now Indians. All our engineers are experts in cement work.

Mr. Ginwala.—Why do you have to employ European mechanical and electrical engineers? I believe you run some railways.

Mr. Annesley.—We do not run them. We have only been concerned in raising the capital.

Mr. Ginwala.—I believe you have to employ mechanical engineers in your other departments?

Mr. Annesley.—Yes.

Mr. Ginwala.—With regard to mechanical engineers there is no trouble at all; you can get any number trained. In the whole of the Tata Works the man in charge of electrical work is an Indian. It is a very much bigger thing than cement, and in the mechanical department they have got nearly all Indians. Is there any special knowledge required that an Indian qualified mechanical engineer would not possess?

Mr. Christensen.—The mechanical engineer here is in charge of the works and does not merely look after anything that is broken down. He has to supervise the running of the plant. When we say mechanical engineer, he is really a cement man with mechanical engineering training. Cement making is a mechanical process, but it involves considerable training and experience in dealing with a heavy type of machinery and the materials too. We certainly have at our works a number of Indians who are quite nice, and we hope in time to be able to make use of them in more responsible positions. The same thing which was said of burners applies to mechanical engineers also. We have lost people time after time; a number of our trained hands have been taken on in other works.

Mr. Ginwala.—You probably know that in Bombay in most of the textile and other mills they have got Indian mechanical engineers; I should think there was no difficulty in getting mechanical engineers trained. A first class mechanical engineer could adopt himself to this work also.

Mr. Annesley.—As Mr. Christensen pointed out, it is not only the mechanical side; he must also be able to supervise the work, and must know something of cement and raw materials.

Mr. Ginwala.—But the mechanical engineer only handles machinery.

Mr. Christensen.—In those jobs where there is purely mechanical work Indians are employed, such as repairs in workshops, etc.

Mr. Ginwala.—Who are these mechanical engineers? What are their special functions?

Mr. Christensen.—They supervise the running of the plant, and in case of a breakdown they must know how to put things right and how the plant has to be run.

Mr. Annesley.—They also attend to the development works. Side by side with manufacture we have done development and extension and they have to look after that.

Mr. Kale.—How do you recruit these mechanical engineers?

Mr. Annesley.—We have our London office and we also write to Messrs. F. L. Smidth & Co., Copenhagen, who supplied our machinery, in the case of men in whom we require some experience and training.

Mr. Kale.—I take it that these men whom you select are actually employed in some cement works in London?

Mr. Christensen.—People like electrical engineers are not.

Mr. Kale.—Others have got actual cement experience?

Mr. Christensen.—Yes.

Mr. Kale.—You say in answer to Question 39 "we are informed by our supervisiors that the standard of efficiency is lower than that of the hands employed in Western countries." On what is his opinion based, on their actual observation or what? How is this comparative efficiency estimated?

Mr. Christensen.—In the cement works at Home a much smaller number of people is employed. On one particular job—daily job which we know is carried out by one man at Home—in our place it requires four. We have explained that "if one of you does this job we will give you more pay' but they refuse to do it.

Mr. Kale.—Suppose we make a calculation like this. We take the number of labourers that we employ here and the number employed in England for the same job and multiply that number by the amount of wages. How will that equation stand?

President.—You are employing 1,200 men and have given your average wage per day; on that basis we can make some sort of comparison with the rates paid in England.

Mr. Christensen.—Roughly speaking, there is no such thing as cheap labour. If you pay less you get less work.

Mr. Ginwala.—Can you give us figures in terms of money? You can say that labour costs 5*s*. a ton in Europe and it costs Rs. 6 here. That will give us some idea of the relative efficiency of labour in the two countries.

President.—You have told us in answer to a later question that you have a disadvantage as compared with the Western manufacturers in regard to labour. I do not find any reason to think so on the figures you have given. The wages you are paying are less than a quarter of the rates in England, and unless you are employing four times as many men you are at an advantage as regards labour. This figure of 1,200 men you have given in answer to Question 36.

Mr. Annesley.—This figure of 1,200 is not correct. The actual factory labour, *i.e.*, people employed on the cement plant is 461, but the total labour employed in the works including the quarry is 1,200. Would you in answer to Question 36 please substitute 461. 461 are the people who are actually in touch with the machinery, and do not include loading, workshop and transport people. It is the actual factory labour.

President.—The point is this. You say that the Indian labour is relatively inefficient. That is the general experience, but the effect of that inefficiency will vary differently according to the nature of the work to be done. If that means that you have got to employ 10 or 12 times as many men as in European countries, then your labour costs will be very much higher, but if it is only three or four times the number of men employed at Home, the rate of wages is so low that it is not a disadvantage at all. Are you prepared to give any sort of figure as to the number of men employed by you compared with the number of men employed by a factory of the same capacity in England?

Mr. Christensen.—I should put the number at 70 at Home compared with 461 here, but it is not fair to compare in that way. In working a cement plant we have always to look at the local condition. If the labour is cheap, certain machinery to facilitate handling is not necessary and you need not pay so much for installing. So a mere comparison is not quite fair. Taking the question of Indian labour in some instances we are just as well off as at Home, while in other instance it is the other way round.

President.—On the whole, do you think that, in respect of labour, the costs are higher in India than they are in the West in cement manufacture?

Mr. Christensen.—I should not like to say that.

President.—It seems to me as if the Indian cement manufacturer has an advantage, and is not paying so much for his labour. I am quite prepared to be convinced if I am wrong.

Mr. Kale.—The answer to Question 39 you have given would require some correction. If you take it from the point of view of cost of production, taking wages and efficiency together, then you cannot say that Indian labour is comparatively less efficient. I attach some importance to this question because certain representatives of labour in the Legislative Assembly took exception to statements to the effect that Indian labour is inefficient. We want to get at the truth.

Mr. Annesley.—It is due to climatic conditions, and individual physique.

Mr. Kale.—We don't want to apportion the blame in this matter, but wish to ascertain the facts. You take the wages and efficiency in the two countries. How do they compare? If the Indian labour is less efficient, the wages that he receives are also much lower than the wages paid in other countries. Have you combined the two factors together and then compared Indian labour with other labour? Can you say that the Indian labourer is less efficient so far as your cost of production is concerned? Individually he may be less efficient, but from the point of view of your cost of production is he less efficient?

President.—Although you are not getting the same efficiency as in Europe, you may be getting all the efficiency you pay for. If you pay four annas you get four annas worth of efficiency.

Mr. Christensen.—Yes.

President.—Your answer rather suggests that it is your opinion that for the lower wages that you pay there is not so much difference between the two.

Mr. Christensen.—That is so, but with Indian labour you have got to have more supervision.

Mr. Kale.—Do you mean that the cost of supervision should be calculated as part of the labour cost in comparing it?

Mr. Christensen.—I should think so.

Mr. Kale.—Will that amount to much? Suppose in other countries you require one man to supervise, say, 30 workers, in India you would require one supervisor for every 15 or 20, is that the idea?

Mr. Christensen.—It all depends on what work they are doing. I find that in India if the Indian labourer knows what he has to do and the amount of work is laid down, then it is not necessary to have a large amount of supervision, but certainly more supervision is needed out here than at Home.

IV. POWER.

President.—I don't think Question 44 has been quite understood. I dare say you would be able to give us the figures we want—the total quantity of coal used in the factory divided by the output.

Mr. Christensen.—The amount of coal varies according to its quality. I have a statement here for 1923 which shows the quantity as 59·19 per cent. That is for every 100 tons of cement we used 59·9 tons of coal.

President.—That is three-fifths to a ton of cement?

Mr. Christensen.—Yes.

Mr. Ginwala.—That includes all your coal, for power and everything else?

Mr. Christensen.—Yes, for miscellaneous and everything else in the factory.

President.—Is that better or worse than what you were getting three or four years ago?

Mr. Christensen.—Considerably worse.

President.—What is the best figure you have been able to work?

Mr. Christensen.—The best figure I have heard of is 45 per cent.

President.—What is the best you have done at Bundi?

Mr. Christensen.—We have been down to 49 per cent.

President.—What it comes to is that you are always trying to work down to half a ton of coal to a ton of cement?

Mr. Christensen.—Strictly speaking, yes. Talking about the coal consumption we might say that miscellaneous coal amounts to 1·4 per cent.

President.—That is the coal you require for miscellaneous purposes?

Mr. Christensen.—Yes, in shop, locomotives and elsewhere.

President.—Do you consider that the quality of the coal that you have been able to get from the Bengal coalfields have shown considerable deterioration?

Mr. Annesley.—When we installed our machinery the coal we used to get gave 8 to 9 per cent. ash. It is getting worse, we cannot get that now.

President.—Are the conditions beginning to improve?

Mr. Annesley.—It has improved slightly. While in 1923 the coal contained about 18 to 20 per cent. ash, during the last month or two there have been only 15 to 16 per cent. but still the coal is badly sorted.

Mr. Ginwala.—But 15 to 16 per cent. for Indian coal is not very much. You ought to be jolly glad if you can get even up to 20 or 25 per cent. There is very little coal in this country which contains less than 16 per cent. ash.

Mr. Christensen.—It affects the output. In the old days when we commenced our works, we tried 6 to 7 different lots of coal and the ash content was from 6 to 12 per cent. Now we cannot get coal like that.

Mr. Ginwala.—It seems to me that, if you insist upon 12 per cent., you would always have to complain; there is very little coal in this country which would give that result.

Mr. Christensen.—The ash contents, I am thinking about, is results of laboratory tests. If you put the coal into the boiler and you measure the coal put in and the ash taken out it will on an average run to 30 per cent.

President.—Do you get the whole of your coal from the Bengal collieries?

Mr. Christensen.—Practically all.

President.—Have you considered the possibility of a nearer source of supply?

Mr. Annesley.—We use a certain amount of Pench Valley coal.

President.—What would be the distance in that case?

Mr. Annesley.—500 miles and the freight would be about Rs. 9 a ton.

President.—You would then save only Rs. 3 on freight?

Mr. Annesley.—Yes.

Mr. Christensen.—We can only use a proportion of that coal on the boilers. It is rather of an inferior quality; it cannot be used in the kilns.

President.—You do not consider that there is much possibility of economy in that direction?

Mr. Annesley.—We have a colliery of our own at Sambalpur, which is nearer than Bengal, which produces a quality of coal slightly superior to Pench Valley coal.

Mr. Ginwala.—Where do you use more coal?

Mr. Annesley.—We use more coal in the boilers.

Mr. Ginwala.—Does it make much difference to the kiln?

Mr. Christensen.—It does. The quality of the cement is affected with a bigger amount of ash. If we get above 20 per cent. of ash it gets mixed in with the raw material and adversely affects the quality.

Mr. Ginwala.—Of course the total quantity used is not much but considering the freight it makes a lot of difference in the final cost. It is really the freight that makes the difference.

Mr. Christensen.—Our total outward and inward freight amounts to about 10 lakhs a year whilst coal alone accounts for 3 lakhs.

Mr. Ginwala.—Do you get any special rates for your coal?

Mr. Christensen.—It is the ordinary coal rate.

Mr. Ginwala.—For the cement do you get any special rates?

Mr. Annesley.—Only on our sales to railways; not to other concerns.

Mr. Ginwala.—Does the short distance principle apply to coal?

Mr. Annesley.—I do not know that the railway practice is uniform.

Mr. Ginwala.—Are you sure that you are not using more coal because of the boilers being rather old?

Mr. Christensen.—Our boilers are inspected every month and we consider them just as efficient as any new boiler.

Mr. Ginwala.—You apparently use more coal than some of the other companies.

Mr. Annesley.—We use coal in small engines for bringing the raw material and it is not fair to compare the consumption of our coal with that of other cement companies.

Mr. Ginwala.—It is not very likely that you would use more coal in transport than other companies. I simply wanted to know whether your equipment had anything to do with the higher consumption of coal.

Mr. Christensen.—No. We have very good efficiency now. We have now got a turbine instead of engines and we have put the figure down for the last three months total to 55·44 per cent.

Mr. Kale.—What is the remedy for the excess of ash in the coal? Supposing there is an excess of ash, in order to protect the quality of the cement, what have you got to do?

Mr. Annesley.—Buy better quality of coal, I should think. Once the coal is in the kiln you cannot extract the ash. That is one of the reasons why we cannot use so much Pench coal.

Mr. Kale.—I thought you had something to add as a remedy.

Mr. Christensen.—Yes, we can increase the lime contents of our raw materials, but at the present day we are in for heavy competition and we have no time to experiment and cannot afford to produce any cement but the very best.

V. MARKET.

President.—I gather from your answer to Question 50 that you do not anticipate that the demand will rapidly increase in India, but that it will slowly increase as the country develops. Am I right in putting this interpretation on your answer that you do not anticipate a very rapid development?

Mr. Annesley.—No, we do not. It will take some time to work up the small consumer.

President.—Do you anticipate that as a result the price of cement will rise substantially as compared with the present price?

Mr. Annesley.—I do not think it would.

President.—I ask that question because it is of some importance as regards the claim for protection. What the industry requires more than anything else is increased consumption, so that I do not quite see that you can afford to raise the price very much.

Mr. Annesley.—By propaganda.

President.—Cheapness is in some respects the best propaganda. I don't know whether you could amplify your answer on this point at all. There is no doubt that, during the last few years, there has been very rapid growth in the consumption of cement in India, and some of the companies who gave evidence before us told us that the consumption would continue to increase at the same rate. That may be so. On the other hand, there is the possibility that the country has reached the amount that it is likely to take at present.

Mr. Annesley.—Financial stringency has a great deal to do with the restriction of works, but better financial conditions might enable more works to be undertaken which would lead to an increase in consumption.

President.—On that basis the prospect would be a little more hopeful. On the other hand, cement manufacturers are at present meeting large demands for works which were held up owing to the war, and so to speak they are making up arrears. A great deal had been hung up during the war, and there has been a rush after the war to get materials and have the work finished.

Mr. Annesley.—We hope several dock schemes will come along. The irrigation schemes and so on will use more cement. We are trying to find out from the irrigation people what their views are, after the Sutlej Valley experiments have become more widely known.

President.—The information we have had up to date shows that it is very much a question of cost. If the prices are raised above a certain figure they won't use much, but if you get the cost of cement down to a certain figure they will use more of it.

Mr. Annesley.—That is so.

President.—You say in the last sentence of this answer " With the disappearance of foreign cements from the markets the prejudice against Indian manufactured cement would tend to diminish." It seems to me that you are rather putting the cart before the horse.

Mr. Annesley.—What it is intended to imply is that, if engineers in the ports could not buy foreign cement, they would gradually take to the Indian cement and would gradually settle down to it.

President.—That may be so. Then in answer to Question 51 you have given us the principal markets to which you send your cement. It would be very useful if you could give us for, say, two or three years the quantities that went to each market. I quite recognize what you tell us in a later answer that the quantities vary. But we would like very much to get some idea.

Mr. Annesley.—I will have that sent to you.*

President.—If you could send us that it would be useful. Everyone has told us that the biggest markets are in the main ports, but we have not got any information as to how much cement is consumed in the ports, and how much up-country.

Mr. Annesley.—I shall send you the information, but I think I will have to ask you to treat the information as confidential. I have no wish to keep anything back from the Board, but we do not like information like that to get abroad to enable our competitors to get a grip over some of our markets.

President.—If you want that to be treated as confidential we shall treat it as such. What we are trying to get at is the total quantity sold at the ports, it doesn't matter who has sold it.

Mr. Annesley.—We will send the information from Bombay.

President.—In your answer to Question 54, you give the prices received from Government and public bodies and so on. These are what you have received?

Mr. Annesley.—Yes.

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* Not printed.

President.—Excluding freight, etc.?

Mr. Annesley.—These are all f.o.r. works.

President.—These prices would be affected, would they not, by the contract with the Bombay Development Department?

Mr. Annesley.—We are concerned in that contract.

Mr. Ginwala.—As regards Question 50, how do you expect the foreign cement to disappear? I mean, what machinery do you propose for the disappearance of the foreign cement from the Indian markets? Of course we have to ask you some more questions later on. You cannot make it disappear except by total prohibition, or by putting a very heavy import duty. If you put a heavy import duty, there is the risk that the price will go up.

Mr. Annesley.—Do you mean the internal price?

Mr. Ginwala.—Yes. In that case, the demand will go down and you would not be as well off as you would otherwise be. How would you suggest the disappearance of the foreign cement at all except by your being able to undersell without increasing the cost to the consumer? The case of your industry is a very difficult one. If you are to get the benefit of protection, you must get a higher price. If you get a higher price, at once it affects the demand. You yourself admit that the country is not used to cement. If the country is to be induced to use it, it must get it cheaper.

Mr. Annesley.—I don't think that it will get it cheaper.

Mr. Reid.—Would the price of cement go up very much if the tariff is increased?

Mr. Ginwala.—If the price does not go up, how are you benefited?

Mr. Annesley.—We would be able to sell all a greater part of our output. To that extent it would be a relief.

Mr. Ginwala.—It would be simple to legislate that no foreign cement should come in rather than to put on a duty of Rs. 25 as you are not going to get the difference of Rs. 25 a ton extra.

Mr. Annesley.—It would have the same effect.

President.—You are already working almost up to your full capacity. Your case is not so strong as that of the other companies, who are producing very much below their capacity. They will benefit more.

Mr. Ginwala.—We will ask you more in detail when we come to that. With regard to Question 54, there has been a little bit of grumbling on the part of other companies. I want to know a little more about that. What are the terms of the contract? I do not suppose that there is anything confidential in that?

Mr. Annesley.—Not at all.

Mr. Ginwala.—First of all, I take it that tenders were invited by these people. How was the arrangement made?

Mr. Annesley.—I could not say straight off that tenders were invited.

Mr. Ginwala.—On the other hand, I have heard it stated in some newspaper that no tenders were invited. That has got nothing to do with us, but we want to know what actually happened.

President.—The Indian Cement Company's representatives told us that actually tenders were called for, and while they were waiting for the result, they suddenly heard that the contract was made with four companies.

Mr. Annesley.—I have not got the papers here. I had a great deal to do with the negotiation. The basis of the contract of the Development Board with the four companies (ourselves as agents for Bundi Portland Cement, C. Macdonald & Co., Agents for Katni and Jubbulpore, and Sir Vithaldas Thackersey, the directing spirit of Dwarka) was cost *plus* percentage basis of profit.

Mr. Ginwala.—Do you mean by cost the works cost?

Mr. Reid.—The total cost of production as defined in the agreement.

Mr. Ginwala.—Does that correspond to the cost you have given us here?

Mr. Reid.—Practically the same.

Mr. Ginwala.—That is to say, it includes everything except the manufacturer's profit.

Mr. Reid.—Except the figure of 15 per cent. profit.

Mr. Ginwala.—You get 15 per cent. on this figure of Rs. 52 mentioned here.

Mr. Reid.—That figure relates to last season.

Mr. Ginwala.—Are these the headings under which the cost is determined?

Mr. Reid.—They are practically the same. That is why the statements for Bundi and Punjab differ.

Mr. Ginwala.—What was the total quantity that you had to supply?

Mr. Annesley.—Up to 60,000 tons if called upon to do so.

Mr. Ginwala.—I take it that their requirements vary?

Mr. Reid.—Yes, up to 60,000 tons from all the four companies. If one company fails, the others have to make good.

Mr. Ginwala.—So that it practically comes to 15,000 tons each?

Mr. Reid.—No.

Mr. Ginwala.—If they take the full quantity it may come to 15,000 tons.

Mr. Annesley.—We never had to supply such a big quantity.

Mr. Ginwala.—Under which heading have you put that contract, Government or public bodies?

Mr. Annesley.—Public bodies.

Mr. Ginwala.—Will you tell me how much you supplied to the Development Board?

Mr. Annesley.—I cannot say off-hand. It was about 7,000 tons in the season of 1923. In 1922 it was about 6,000 tons.

Mr. Ginwala.—Who are the public bodies that took cement from you?

Mr. Reid.—The Municipal Corporation and the Public Works Department.

Mr. Ginwala.—Did the Bombay Corporation take cement from you? I understood that they did not buy from you.

Mr. Annesley.—Yes, they are still taking.

Mr. Ginwala.—After the Development Department made this arrangement with you, I understand that the Public Works Department have entered into similar contracts with you.

Mr. Annesley.—The Development Board made a stipulation that other Government Departments should be allowed to take part in this agreement. The clause in the agreement reads:—"In consideration of the agreement by the Secretary of State to purchase cement as hereinafter contained, the selling companies hereby agree that, if in any season during the continuance of this agreement the Director of Development shall not require the whole of the cement up to the said limit of 60,000 tons, the selling companies will sell at the price and upon the terms *mutatis mutandis* of this agreement and the agreement hereinafter mentioned to the Public Works Department of the Government of Bombay, the Municipal Corporation of the City of Bombay and the Trustees for the improvement of the City of Bombay such quantities of cement in each season during the continuance of this agreement representing the difference between the said quantity of 60,000 tons hereinafter called the surplus cement as shall be required by the said departments and local bodies respectively."

Mr. Ginwala.—So that it is all within the limit of 60,000 tons and there is nothing extra?

Mr. Annesley.—No.

Mr. Ginwala.—For how many years was it?

Mr. Annesley.—For 10 years.

Mr. Ginwala.—May I take it that these figures, Rs. 78 and Rs. 59, which you have given as the realised prices from public bodies, are according to the contract?

Mr. Annesley.—The figure Rs. 78 does not apply to the contract.

Mr. Ginwala.—It introduces another complication in our calculations as to the works cost.

President.—For what period was the contract?

Mr. Annesley.—For 10 years.

President.—How many years have you still to run?

Mr. Annesley.—Eight years more.

Mr. Ginwala.—Why is it that there is a big difference between 1922 and 1923 in your Government prices? It comes down from Rs. 85 to Rs. 52. It does not correspond with the drop in the market price. Are these under some old contracts?

Mr. Annesley.—In 1922 there was a large fluctuation.

Mr. Ginwala.—There is a big difference between your figure and the general market price, and also a great deal of difference between the 1922 and 1923 prices.

Mr. Annesley.—We have given you what we actually realised.

Mr. Ginwala.—Is there any special arrangement with the Government apart from the contract that you have with the Development Department?

Mr. Annesley.—Not for Bundi.

Mr. Ginwala.—So far as Bundi is concerned, that is the only Government contract?

Mr. Annesley.—Yes.

President.—There is no other continuing contract?

Mr. Annesley.—No. As regards the price of Rs. 52 realised from Government, it may have been influenced by our sales to the United Provinces Government. That would be special sales and not a contract.

VI. FOREIGN COMPETITION.

President.—In answer to Question 57 in giving the prices of imported cement for 1921, 1922 and 1923 you say "due to high freights by importing steamers." Does that apply to all the three years? I imagine that it could only apply to 1921 because freights have fallen heavily since then like everything else. Rs. 75/55 a ton is not very high when compared to the pre-war price. Also in addition to the high freight, I take it that there was a general high level of prices which the manufacturers in Europe were able to get for the first two or three years after the war and then came the steady fall.

Mr. Annesley.—In 1921 they were able to get high prices because there was not enough Indian cement.

President.—These prices were world prices *plus* freight?

Mr. Annesley.—Yes, I think so.

President.—What I mean is that only the freight was high, but also the world price was high?

Mr. Annesley.—Yes.

President.—In the last sentence of your answer to Question 57 you express your inability to divide the price of imported cement according to the various items we have enumerated in the question, but in answer to Question 58 you say "we have our own system of advices from London giving f.o.r. price in sterling and the freight rate for British Portland cement, and we are aware of the Customs duty and approximate landing costs in India." Don't you think that is just the information required to answer Question 57?

Mr. Annesley.—We thought that it applied to earlier years. As a matter of fact, since we wrote that, I can give you the details of the present import price.

President.—It would be useful to have that if you can give it to us.

Mr. Annesley.—"On the 30th April 1924, the London Agent was requested to obtain quotations for the supply f.o.b. British Port of 6,000 tons Portland cement and on the 2nd May 1924, tenders were also invited locally from sixteen firms for the supply and delivery of the same quantity. Replies were received from ten firms as per tabulated statement attached hereto.

The London Agent cabled a quotation of £0-8-8½*d.* per barrel of 400 lbs. nett f.o.b. England. Taking exchange at £0-1-4⅞*d.* to the rupee the price per barrel f.o.b. Indian port works out as follows:—

	Rs.	A.	P.
Cement £0-8-8½ per barrel	6	3	1
Freight, £0-16-6 per ton	2	1	6
Customs duty, 15 per cent., on Rs. 3 per cwt. .	1	9	8
Landing charges and river dues Rs. 2-8-0 per ton	0	7	2
Railway freight, Re. 1 per ton	0	2	10
Insurance, £0-5-0 per £100	0	0	3
TOTAL PER BARREL .	10	8	6

or Rs. 58-15-7 per ton f.o.b. Indian port."

President.—In your answer to Question 61 you say "Most of the Indian works are at a disadvantage owing to their distance from the principal ports, and are further handicapped by high railway freights." I would rather like to ascertain just what you mean by the railway freights being high. Undoubtedly they are high as compared with what they were before the war. But do you consider them high as compared with what they are for corresponding distances in other countries?

Mr. Annesley.—No.

President.—I want to find out whether you are suggesting that they are higher than they need be, or than they are in other countries.

Mr. Annesley.—I have not got the English figures. The British exporting works are on the Thames. The freight from Lakheri to Bombay is Rs. 12-10-8 per ton.

President.—What distance is that?

Mr. Annesley.—610 miles.

President.—One of the obvious difficulties in the whole case is that, though some of the cement companies are more favourably situated than others, on the whole they are at a considerable distance from the principal markets. What I wanted to ascertain was how do they compare, for instance, with the rates that you had to pay when you first started in 1916? I don't think there had been a general increase in rail freights up to 1916.

Mr. Annesley.—Certainly there has been an enhancement in railway rates.

President.—It would be interesting to know—you are one of the few companies that could tell us—how the freight on cement has changed since you started?

Mr. Annesley.—I could certainly tell you what we used to pay, but I cannot tell you at the moment.

President.—The two freight rates that would be useful to know would be those paid in 1916 on Bengal coal to Lakheri and similarly for the same year from Lakheri to Bombay on cement. That would give one quite a reasonable idea.

Mr. Christensen.—As far as I remember the freight on coal was Rs. 6-10.

President.—The distance from the ports is, so to speak, a natural disadvantage. It would be possible to get round it by specially low freights, but these are hardly distinguishable from a subsidy. What I wanted to ascertain was whether you had any special grievance beyond the mere desire to see freights reduced.

Mr. Annesley.—The railway freights on cement are not uniform.

President.—In what sense do you mean "not uniform"?

Mr. Annesley.—The calculations are not uniform.

President.—Not uniform as between different railways?

Mr. Annesley.—That is so.

President.—But does that operate so as to favour your competitors in India rather than you, or to favour the importer rather than the Indian producer, and what inference do you draw from that? After all we are not concerned with the minor differences, but only in so far as they affect our problem.

Mr. Reid.—The railway freight we have to pay to Bombay is more than the sea freight which our foreign competitors have to pay.

President.—After all, in the long run it would come to this. Some way or other Government ought to compensate you for the low freights that your foreign competitors have to pay. Also it has this to be said, that the present freight from Europe to India is very low, only 10 or 15 per cent. above the pre-war level, whereas the railway freights are a great deal more than the pre-war rates. However, I mention it because, if on reflection you think that there is anything further you can tell us, we would be glad to have it.

Mr. Annesley.—Thank you very much. We will endeavour to do so.*

President.—In answer to Question 63, you compare the freight from Bombay with the freight from Europe which you say is 16*s.* to 18*s.* per ton less a substantial rebate. Can you tell us anything about that rebate? Is it a matter of knowledge or is it only a matter of inference? The information we have had from the Indian Stores Department is that the freight is about 16*s.*

Mr. Annesley.—I think it is 16*s.* 6*d.* I know it is customary to give a rebate. That is existing for many years on everything else—about 10 per cent.

President.—If it substantially affects the freight in imported materials, it may be of some importance to us, but one wants to know whether in fact it applies to cement.

Mr. Ginwala.—Rebate is given on the total tonnage by the company to a particular consignor, provided he ships his cement by that line.

Mr. Annesley.—By the Federation.

President.—Does that system extend to all commodities?

Mr. Annesley.—It certainly used to, but whether it extends to cement now I am not able to say.

President.—One frequently hears complaints also that the freight from Antwerp is considerably lower than the freight from London, do you know that that is the case in regard to cement?

Mr. Annesley.—I do not know.

President.—I was wondering whether it would be possible for you to give your freight to each of the markets mentioned in answer to Question 51.

Mr. Annesley.—I think I can give you the rates.† I have got the rate per maund per mile.

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*Statement III (c).

† Enclosure IV to Statement III.

President.—I was thinking more of the total figure. It would be useful if you could give us that.

Mr. Annesley.—I will supply you with the information.

President.—Then going on to Question 66 (*b*), the question was "Do you consider that, as compared with the foreign manufacturer, the Indian manufacturer is at a disadvantage in the cost of expert labour?" You say "Yes. As expert labour for construction of works and new plant has to be brought out at high rates for a short term." That would affect the original cost of your machinery, but clause (*b*) really referred to imported labour for running the works. We need not pursue the matter, however, because we have discussed it earlier and we have also discussed the cost of efficiency of ordinary labour.

Mr. Ginwala.—Your realised price was Rs. 57 a ton for 1923—answer to Question 57. That seems rather a good rate.

Mr. Annesley.—But prices have gone down.

Mr. Ginwala.—What have you realised this year?

Mr. Annesley.—Rs. 41.

Mr. Ginwala.—For the first six months?

Mr. Annesley.—Yes.

Mr. Ginwala.—You mean the calendar year, I take it?

Mr. Annesley.—Yes. January to December.

Mr. Ginwala.—Up to December it was Rs. 57 on an average and since then it has gone down to Rs. 41?

Mr. Annesley.—Yes.

Mr. Ginwala.—What is that due to? In your case you have got long term contracts.

Mr. Annesley.—Competition with Indian companies.

Mr. Ginwala.—What is the lowest rate that you have got?

Mr. Annesley.—Rs. 30 f.o.r. works.

Mr. Ginwala.—Why is this drop? Is it due to internal competition?

Mr. Annesley.—Yes.

Mr. Ginwala.—But it is not regulated in that case by the foreign price, because the foreign price is pretty high.

Mr. Annesley.—Yes, that is because they won't sell cement unless they get a certain price, and there are some people who will buy English cement.

Mr. Ginwala.—In answer to Question 62 you say that they are selling at unremunerative prices.

Mr. Annesley.—They admit that they are selling it at net cost or under.

Mr. Ginwala.—Would it be right to say that this Rs. 59 is about the lowest price above the cost of production at which the British manufacturer can afford to sell cement? If he sold it at below Rs. 59 he would lose. Rs. 59 f.o.r. Indian port is the equivalent in Great Britain of £2-10-0 is it not?

Mr. Reid.—8*s*. 8½*d*. per barrel or about £2-10 a ton.

Mr. Ginwala.—According to you, at £2-10-0 he hardly makes any profit or he may be losing. It is for you to tell us. One thing that we have got to see is how your cost of production compares with the foreign cost of production apart from the question of freights and other things. Now you are not able to give us any evidence as to their cost of production, but you have shown that with £2-10 they make a very small profit or are not making any profit at all. So it is very nearly the cost of production.

Mr. Annesley.—If we refer to the report of the Associated Portland Cement Manufacturers it will be seen that they themselves admit that they are carrying on their export business at a little profit.

President.—It is for you to prove that with this £2-10 the British Manufacturer is not making any profit at all.

Mr. Annesley.—In the end of 1922 the Directors of the Associated Portland Cement Manufacturers stated that their cost was 40s. a ton in the stock which does not include packing or transport. That was their works cost.

Mr. Ginwala.—That was in 1922?

Mr. Annesley.—Yes.

Mr. Ginwala.—They claim now that they have reduced their cost of production a great deal since then. What is their present position? As far as one can see from the reports they are bringing down their cost of production and so they are going to recapture the markets. I am speaking of the British manufacturer. As you probably know, Belgium really invaded Great Britain in the matter of cement for some time, and the British manufacturer has had to reduce his cost, and he says he has reduced his cost of production and can compete reasonably against the Belgium manufacturer. If that is so, what we want to know is what is approximately his cost of production now? You have given us a figure and you say that he sells at £2-10 and that he does not make much profit and probably that is his cost of production.

Mr. Annesley.—It is exceptionally difficult to get hold of their cost of production.

Mr. Ginwala.—It is for you to establish your case. If it is your case that the foreign manufacturer goes on selling at Rs. 59 f.o.r. Indian port, and he is not making any profit out of it, it is a clear case in which you may reasonably claim some protection because you cannot afford to sell below that price that being a new industry, but you have got to substantiate it. The mere fact that a man is able to sell at Rs. 59, whereas you cannot sell at that price, does not exactly show that he is selling at a loss.

Mr. Christensen.—It is impossible to get from the Home manufacturer what his cost of production is.

Mr. Ginwala.—Is it your case that at Rs. 59 the British manufacturer makes little or no profit?

Mr. Christensen.—Yes. At that price he can get very little margin.

Mr. Ginwala.—If the price goes below that it is clear he is selling at a loss in your opinion?

Mr. Christensen.—We think so.

Mr. Ginwala.—If you wanted to convert the market price of imported cement into its c.i.f. price, shall we be right in taking these figures as correct?

Mr. Annesley.—For Calcutta it is all right but for Bombay it will make a slight difference.

Mr. Ginwala.—How much have you got to add in Bombay over the c.i.f.?

Mr. Reid.—Duty—Rs. 9 a ton. Wharfage Rs. 1-11. In the case of Calcutta, landing charges are Rs. 2-8 a ton. We may say that it is about Re. 1 cheaper in Bombay than in Calcutta.

Mr. Ginwala.—When cement is imported into the country it is usually for c.i.f. price?

Mr. Reid.—Yes.

Mr. Kale.—In answer to Question 66 (*d*) you say that in the matter of collection and transport of raw materials you are not at a disadvantage. Have you any idea of the cost per ton of raw materials in the United Kingdom? How does it compare with your cost?

Mr. Christensen.—Compared with the clay and chalk which the home works can conveniently scoop out by a navvy from the side of a hill our cost for quarrying is higher.

Mr. Kale.—So the cost of transport would be negligible?

Mr. Christensen.—Yes. Very very small.

Mr. Kale.—In answer to (*h*)—customs duty on imported materials—you say you are at a disadvantage. What do you mean? You do not import any of the materials that you use.

Mr. Christensen.—We meant spare parts and strictly they are not materials for production of cement, but they are a necessity to enable us to carry on.

Mr. Kale.—Are you getting out your spare parts from the United Kingdom?

Mr. Christensen.—We get only a portion of the spare parts in India; we can make simple castings.

Mr. Kale.—So it has nothing to do with raw materials of any kind?

Mr. Christensen.—No.

VII. Equipment.

President.—In answer to Question 69 you have stated that 30,000 tons is the smallest unit of production that is practically a one unit plant.

Mr. Christensen.—Yes.

President.—Then in answer to Question 73 "Do you consider your machinery and other equipment sufficiently up to date and efficient to enable you to compete successfully against the foreign manufacturer" you say "yes, provided we are protected against surplus products being dumped into the country and are not unduly handicapped by high rail freights." All the question meant was this. So far as your plant and machinery are concerned, are you in a position to compete?

Mr. Christensen.—Yes.

President.—You say in answer to Question 75 that you have installed new plant and machinery from time to time to improve, accelerate and cheapen the cost of manufacture. This second unit that you have installed, do you regard that as more efficient than the first in any way?

Mr. Christensen.—The cement plant is merely a duplicate. As we mentioned this morning the second plant will effect a saving and will give better efficiency and enables us to keep pace with the development in the trade.

President.—The plant of the Punjab Cement Works was ordered, of course, at a later date. Do you regard your plant as efficient as the Punjab plant?

Mr. Christensen.—There are certain details. The present crushing plant which we are now replacing is not considered as up to date as the new one will be. The difference between the cost of working the two plants should be very small apart from the cost of labour and coal.

President.—These are not really controllable, but on the whole you regard your equipment at Bundi as quite good enough, and that you are not in any way handicapped by your equipment?

Mr. Christensen.—From time to time we have had people from Home cement works to inspect our works and acting on their advice we have installed various improvements thus keeping our plant up-to-date.

President.—I am interested in what you say in reply to Question 76 (b) that the company is also contemplating the installation of a Waste heat utilisation unit, which is one of the improvements which have come to the fore in recent years. After all, if you want to bring down your cost, the thing you have to tackle chiefly is coal. The rest are almost negligible.

Mr. Christensen.—The waste heat unit is comparatively of recent origin. It was only put on a practical basis recently and only two years ago we obtained various quotations. At the present moment our Agents at Home are looking at places where they are using this type of boiler and are reporting on it.

President.—I gather that in most of the industries a lot of work of that kind is being done, because when the prices of coal have gone up it becomes a matter of importance?

Mr. Ginwala.—Has there been any radical alteration in the processes since you started?

Mr. Christensen.—We are working on the so-called dry process system We are grinding our materials in the dry state and we merely add a little water to it before it goes into the kiln.

Mr. Ginwala.—Has there been any radical alteration in the machinery, for instance?

Mr. Christensen.—We have improved our grinding machinery and we are putting on a new crushing plant to make it more efficient and entirely up-to-date.

Mr. Ginwala.—What I wanted to know was whether you would be at any disadvantage when compared to men starting to-day, for instance.

Mr. Christensen.—As I said before, comparing the Bundi and the Punjab Cement plants, there is very little difference in the cost of manufacture. We have been improving our plant from time to time and kept it up-to-date.

Mr. Ginwala.—Have you scrapped your original plant?

Mr. Christensen.—Partly; what was built in 1915 is now out of commission and is standing spare.

Mr. Ginwala.—What we really wanted to know is whether you were going to have any extensions and what they were going to cost you?

Mr. Christensen.—It would cost about 2 to 2½ lakhs of rupees for a Waste Heat Boiler.

Mr. Ginwala.—But in the extensions to the crushing plant?

Mr. Christensen.—Crushing plant will cost one lakh.

President.—Turning now to the capital account, do you consider that spare parts and loose tools come under the heading Fixed Capital Expenditure, or will they not come under Working Capital?

Mr. Annesley.—Loose tools, which is after all only Rs. 20,000.

President.—Would not stores and spares normally be considered as being provided from the working capital. It is a continuous process.

Mr. Annesley.—Yes.

President.—That reduces to something like 33 lakhs the present value of your fixed capital expenditure as it stands in your books. It really means, taking off these last two items, that the original value at cost before depreciation is Rs. 48 lakhs. You have told us in answer to Question 81 that the estimated present day cost of erecting a factory similar to this company's plant would be about Rs. 65 lakhs. The main importance of these figures is to try and get the figure of capitalization per ton of output which is reasonable to take as what the Indian manufacturer has to incur. We must endeavour in some way to arrive at some sort of all round figure. Of course your figure of Rs. 65 lakhs is very convenient for 65,000 tons which comes to Rs. 100 a ton.* The figure that you have given for the Punjab Cement Co. might possibly be subject to some modification, because you take 50 lakhs as the present-day cost of a factory which is producing 36,000 tons, and if you add only 10 lakhs it would double the output. It means you would require Rs. 60 lakhs for an output of 72,000 tons which is roughly Rs. 83 per ton.

Mr. Annesley.—The Punjab works are so designed that they can be worked at minimum cost.

President.—What we are contemplating is what would it cost you to-day to duplicate your works with all the knowledge and experience you have got? One does not quite see why it should be higher in Bundi than elsewhere. You have got a free hand to design it in any way you like to make it more economical.

Mr. Christensen.—The Punjab works are really designed for double the capacity and consequently the cost will only be Rs. 65,000.

President.—For 36,000 tons the capitalization is much higher, but for 72,000 tons it is much lower, if you are right in your belief that for Rs. 10 lakhs you can double your output.

Mr. Christensen.—It is only a rough estimate.

President.—If it is a rough estimate perhaps Rs. 65 lakhs is a safe figure. On that basis you have some advantage at present as compared with companies established more recently because your capital cost is lower.

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* See Statement III (*d*).

Mr. Christensen.—Yes.

President.—There is just this to be said that what you have actually spent on fixed capital expenditure is 48 lakhs, and out of that just over 17 lakhs was spent since 1917, that is roughly since the period of high prices began.

Mr. Christensen.—Yes.

President.—So that for about two-thirds of your expenditure probably the rate you paid was substantially below the present-day rates, and apparently for a good deal of later expenditure, about one-third of your total, the rates were above the present-day rates. If so, it seems to me that Rs. 65 lakhs is a little on the high side.

Mr. Christensen.—That is again an estimate. Putting down a double plant, would certainly not be just double; the price would be less.

President.—I do not want to push that point. But looking at the expenditure you have actually incurred—a part of it incurred at a lower price and another part incurred at a higher price—it seems to me that it would probably cost you less. At any rate roughly your belief is that for an outturn of something like a two unit plant the capitalization required is something like Rs. 100 a ton?

Mr. Christensen.—Yes, approximately.

President.—The importance of it comes in here. Supposing 8 per cent. is an all-round rate at which capital can be raised for a factory starting now, the reasonable profit for a manufacturer would be Rs. 8 a ton in perpetuity. On the other hand owing to the fact that you started earlier, you only require about Rs. 6 a ton to earn the same rate of profit. Even for you, however, there is always the question of eventual replacement looming in the future?

Mr. Annesley.—Yes.

VIII.—CAPITAL ACCOUNT.

President.—Let us now turn to Question 83. Would it be possible for you to let us have copies of your annual report and balance sheet?

Mr. Annesley.—Yes, here are the balance sheets for 1920, 1921, 1922 and 1923.

President.—The total dividends paid during the 7 years comes to just over 30 lakhs and the subscribed capital is 20 lakhs, so that practically the shareholders have got their money back?

Mr. Annesley.—Yes.

Mr. Ginwala.—You keep your accounts on the basis that your assets are never supposed to depreciate at all times?

Mr. Annesley.—Yes.

Mr. Ginwala.—That is your system?

Mr. Annesley.—Yes.

Mr. Ginwala.—In your case the question of replacement may never arise as a whole?

Mr. Annesley.—No.

Mr. Ginwala.—Can you give us the total profits made in these years?

Mr. Annesley.—I will give you a statement to-morrow after deducting the interest on debentures and the amount set aside for depreciation and reserve fund each year.*

Mr. Ginwala.—You have got a paid up capital of how much?

Mr. Annesley.—20 lakhs.

Mr. Ginwala.—And debentures?

Mr. Annesley.—5 lakhs.

Mr. Ginwala.—How do you finance your "Block account."

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*Statement V, enclosure I.

Mr. Annesley.—From the profits and amounts set aside for reserve.

Mr. Ginwala.—That is to say, you started with one unit and as you made profits you enlarged it?

Mr. Annesley.—Yes.

Mr. Ginwala.—The total block value comes to Rs. 47 lakhs?

Mr. Annesley.—Yes.

Mr. Ginwala.—The paid-up capital and debentures comes to only Rs. 25 lakhs?

Mr. Annesley.—Yes.

Mr. Ginwala.—So that the rest must have been found from profits?

Mr. Annesley.—Yes, we put it in the business.

Mr. Ginwala.—You don't issue bonus shares, do you?

Mr. Annesley.—We have never paid dividends by way of bonus shares.

Mr. Ginwala.—Your business is actually worth a good deal more than the share capital?

Mr. Annesley.—Yes.

Mr. Ginwala.—Of course if you had given bonus shares, you would have had to earn a much bigger profit.

Mr. Annesley.—Yes.

Mr. Ginwala.—How do you expect to redeem your debentures—by raising more debentures or what?

Mr Annesley.—It is very small sum and 6 per cent. is a very good rate of interest. We may renew them or pay them off as it suits us.

IX. COST OF PRODUCTION.

President.—We have been successful in persuading the companies that have come before us to agree to the publication of their cost and they have all done so without a single exception. The Indian Cement Company, the Gwalior Cement Company, the Dwarka Cement Company and the Central Provinces Cement Company and all the paper companies that have come before us so far have agreed. The importance of it is just this. In any recommendations which we may place before the Government of India, it is very desirable that we should be able to give definite reasons for the amount of protection we may recommend. It is hardly possible to do that without in some way giving the cost of production, and the whole spirit of the discussions in the Legislative Assembly rather impressed me with the feeling that they expect to be furnished with reasonably full information on this question of costs. Without the total works cost, it is hardly possible to make any recommendation at all. The whole thing will be in the air. What you will have to consider is whether, if there is any risk of your competitors learning your costs, it may be counterbalanced by supporting the case for protection by agreeing to publish your costs.

Mr. Ginwala.—As regards your contract with the Development Department of Bombay, you charge a percentage on cost.

Mr. Annesley.—Yes, but they don't publish our costs. They only have a right to inspect.

Mr. Ginwala.—There are four companies in that contract. Each company is entitled to know what the other gets.

Mr. Annesley.—Each is sending a separate return.

Mr. Ginwala.—On a percentage on costs basis one company may get more owing to mismanagement and one may get less because of its efficiency. Do you mean to say that this last company is not entitled to know what the other is getting?

There is one other point which I should like you to consider. You must have followed the debates in the Legislative Assembly. Now, of course, we do not know what our recommendations may be, for we have not examined the case fully yet, but supposing it was a case of giving bounties—put it that way—then it is necessary for the Government and the Assembly to know whether a company is reasonably running its works and whether it is a company that ought to be encouraged or not. They might say "All right, this company's costs we do not know. Exclude that company from getting the benefit of the bounty." I do not know, as I have explained to you, what form our recommendations may take. We cannot tell them your costs because you ask us not to publish them. They may say "Give bounties to those companies whose costs we know." It is a real difficulty.

Mr. Reid.—May we enquire whether the other companies have agreed to publish their costs?

Mr. Ginwala.—So far, every one has agreed.

Mr. Annesley.—Have Katni and Jubbulpore agreed to publish their costs?

President.—They have sent us their costs and said nothing whatever about their costs being confidential. They are about to be published, the only exception being the Sone Valley Company which has not given us any costs.

Mr. Annesley.—Have they replied to your questionnaire?

President.—Yes.

Mr. Annesley.—Considering the competition we are up against at the present time, it is a very serious matter indeed to publish our costs. We do not want to hide anything from you. Of course the position has been a little eased in my opinion by the fact that the three of our principal competitors have agreed to publish theirs. Our difficulty is that the moment we agree to publish our costs, they will be cabled Home to our competitors there.

President.—Perhaps on thinking it over, you would be able to give us a favourable reply to-morrow.

Continued on 22nd July 1924.

(Mr. Annesley referred to what had transpired at the close of the previous day's sitting and said that all figures, Statements of costs, etc., which they had put in, might be published and that they withdrew their previous stipulation to the effect that these should not be made public.)

President.—In your future costs, which of these items that we have got in the new statement do you think would go down? As regards the cost of fuel, apparently you show a reduction.

Mr. Annesley.—We hope that it is coming down.

President.—Is it a fall in the market price of coal that you are anticipating?

Mr. Annesley.—Yes.

Mr. Reid.—Against that, the price of bags has gone up.

President.—As regards the remaining charges, are they likely to be stationary, or do you hope to bring the costs down on the basis of cost per ton?

Mr. Christensen.—The crushing plant that we are installing at Bundi will tend to reduce the cost. Apart from bags and coal, the cost of stores, spares, etc., is cheaper now than previously. Consequently we expect a reduction in cost.

President.—To what extent?

Mr. Christensen.—It is very difficult to say.

President.—The question is what possibilities are open to you for reducing your cost?

Mr. Christensen.—In the next few years the quarry cost may go down. Fuel cost also may go down and as stated the crushing plant that we are installing will also reduce the cost.

President.—The whole importance of it is this. Imported cement is coming in for Rs. 50 or less without Customs duty. First you have to take the freight to Bombay which is Rs. 12-8-0. That takes you to Rs. 37-8-0. On the basis of the figures you have given us the capitalisation is Rs. 100 per ton of output and in order that the manufacturer should earn a reasonable profit, it comes to Rs. 8 a ton. Your depreciation comes to Rs. 5 or Rs. 6 a ton and head office expenses Re. 1 or Rs. 2. That takes you down to Rs. 22. So, you have got to bring your works cost down to near Rs. 20 in order to compete. Of course I quite recognise that some of the companies might be able to survive though others could not, but to my mind, on the figures that you have given, it is not clear that the industry will ever be able to dispense with protection entirely. Then, of course, there is the other question that the industry is a national necessity. That still remains as a reasonable ground for protection.

Mr. Ginwala.- Another point is that the price of foreign cement may go up.

Mr. Annesley.—That is very likely. At present prices they are not making any profit.

President.—In European countries, costs can be brought down, and are brought down, under the stress of competition. That is why we ask whether your costs might come down. Is there any reasonable prospect of the companies being able to hold their own. We cannot assume that there will be a reduction of more than 5 per cent. That comes to only Rs. 2-8-0. You are unfavourably situated as regards the ports. Your freight on coal is very much greater than in other cases. You may have other advantages. Some companies are more favourably situated than others as regards the distance from coalfields and markets. The Sone Valley Company are favourably situated as regards Calcutta. The Shahabad people are favourably situated as regards Madras. The big question is what likelihood is there of the cement companies being able to meet eventually world competition without protection. It is so important that it is worth your while to think it over and let us have your views in writing later on.

Mr. Ginwala.—They may say 'our ultimate markets are not the ports'. In that case the situation is very much altered.

President.—You might be able to show that the development of the up-country market might enable you to sell at a lower price at the ports.

Mr. Annesley.—I was going to say that in order to keep going on full output, we had to sell in Bombay at a lower rate.

President.—I know that you do. That is because of the internal competition. Eventually one assumes that the demand and production will be somewhere near each other. Sometimes one may be larger and at another period the position is reversed. One assumes that there must be some sort of equilibrium and the price of cement would be determined by the price at which cement could be imported. When you are considering whether this industry will be able eventually to dispense with protection, you must make that kind of assumption.

Mr. Ginwala.—One of the difficulties is that we have not got figures to show how much of this cement is used at the ports and how much is used in the interior.

Mr. Annesley.—We promised to give you our figures.*

Mr. Ginwala.—We have not sufficient data for the imported cement. We know how much is imported. We do not know how much is used in the ports and how much goes upcountry. That would be important in this way. It may be that you may not be able to do without protection at the ports. On the present figures you may always require protection at the ports. But if it can be shewn that the bulk of your production can be sold in the interior at prices which will be considerably higher than the prices at the ports, you partially meet the difficulty, but we have not got the figures so far, as I have explained.

President.—In your answer to question 93, you say "Last year's costs were high owing to abnormal cost of coal." Did that refer to the general rise in the price of coal or was there any special reason?

Mr. Annesley.—We had contracts which was entered into during the time of high prices.

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* Not printed.

President.—After all, high prices were going on in 1923. Were coal prices higher in 1922 than in 1923?

Mr Reid.—In 1923 prices were high as compared with present prices.

President.—We went a great deal into the price of coal in our steel enquiry, and I did not get the impression that there was a large reduction in the price between 1922 and 1923.

Mr. Reid.—Last year's figures were affected.

President.—Do you regard the price you paid for coal in 1923 as abnormal because you had to take over a certain amount of coal under a contract entered into in 1922? My point is that I did not realise that between 1922 and 1923 there had been a large fall.

Mr. Annesley.—I am not sure of the date of the contract.

President.—Was the price of coal lower in 1923 than in 1922?

Mr. Annesley.—Yes.

President.—Was the difference very great?

Mr. Annesley.—Only about Rs. 5.

President.—What did you pay under the older contract?

Mr. Annesley.—Rs. 15.

President.—At the pit's mouth?

Mr. Annesley.—Yes.

President.—At what rate did you buy when the contract expired?

Mr. Annesley.—Approximately Rs. 12.

President. What class of coal is it?

Mr. Christensen.—We have two different types of coal, one for boiler and another for the kiln.

President.—You have given two prices, *viz.*, Rs. 15 and Rs. 12. What kinds of coal do these prices relate to?

Mr. Christensen.—First class Jheria.

President.—Is it first class coal?

Mr. Christensen.—Yes.

President.—Perhaps it was due to waggon shortage. For what price can you buy the same kind of coal?

Mr. Christensen.—About Rs. 10-8-0.

President.—I understand it is easier now to get coal sent up-country?

Mr. Christensen.—Yes.

President.—In answer to question 96, you say that the rates on crushing and grinding machinery should be increased to at least 10 per cent. owing to the unusually heavy wear and tear. To what extent have you had to spend money on replacing parts of machinery? I had better explain. If you do it merely as part of your works expenditure, then it will appear in your costs under the head 'repairs to machinery.' Then, it is not necessary to raise the depreciation rate on that account if allowances are already made for that in the works cost. If on the other hand when you have to replace important parts of your machinery, you do it out of capital, then it should be provided for in the depreciation fund. Therefore what I wanted to ascertain was how much you have had to spend up-to-date out of your capital on replacing your machinery?

Mr. Christensen.—There are the crushing plant, the grinding plant, etc. If the main frame of the plant is damaged, it cannot be run. The average life of the plant is 10 years.

President.—How far have you had to do it up-to-date?

Mr. Christensen.—We are just replacing one of our crushing plants.

President.—That was partly because you hoped to get better results?

Mr. Christensen.—Yes, and partly to get better facilities.

President.—Would you have, up till now, replaced your crushing machinery, if it were merely a question of the machines being worn out and no question of better designs and better results?

Mr. Christensen.—Already we had to replace one of our crushers.

President.—Is this 10 per cent. rate only for grinding and crushing machinery? Would it apply to the kilns?

Mr. Christensen.—No.

President.—In answer to question 98, you have given the amounts required annually for depreciation at income-tax rates and then at proposed new rates. The depreciation in machinery in both cases is the same, but as regards buildings it is double. I am afraid I don't quite follow. Then in your answer to question 97 there is only a difference of Rs. 1,000 as regards the depreciation on plant and machinery and I cannot arrive at it because I cannot put a percentage on it. 10 per cent. is only appropriate to the grinding and crushing machinery. Would you please look into it and let us have the figures that ought to be inserted?

Mr. Annesley.—Yes.*

President.—In answer to question 101 you say " We have found it convenient for the Company to have a cash credit at the Bank in order to finance outstandings, and the large stocks of coal and other stores it is necessary to maintain." In an earlier paragraph you say " We anticipate that the cost of the replacement and development schemes under contemplation will be met from Reserve Fund and not by an increase of capital." If you have got your reserve fund in a form which is available to meet new capital expenditure, then I take it that for the time being it will be used as working capital?

Mr. Annesley.—Yes.

President.—I notice from your last balance sheet that at that time you must have been using your Reserve in that way, because the total amount you had outstanding was quite small. That means that though you may from time to time find it necessary to borrow more money it was not necessary at the end of the last financial year. You say in answer to Question 96 that on buildings a minimum of 5 per cent. should be allowed owing to the tendency for buildings to become obsolete and uneconomical owing to changes in the process of manufacture. Do you think that the cement industry is more subject to such changes than other industries?

Mr. Christensen.—For the last 20 years there has been a big change in the cement industry, and we expect further advances from time to time.

President.—Big advances are made in the case of all industries, and it does not seem to me on the rest of your evidence there is any special reason for the cement industry to have a higher rate of depreciation on buildings than other industries, such as cotton, paper, or jute. You have stated that the rates of depreciation allowed by the Income-tax authorities are 2½ to 5 per cent. in the case of buildings. On what class of buildings is 5 per cent. allowed?

Mr. Christensen.—I think buildings where heavy machinery is put up. I should imagine that in 20 years time an alteration in the plant as a whole is a necessity.

President.—Are you going to replace all your buildings in 20 years? Do you know the practice in Great Britain?

Mr. Ginwala.—2½ per cent. is always allowed on *pucca* buildings and 5 per cent. on *katcha* buildings. I have never known a *pucca* building taken at anything less than 40 years. Of course you may have a building without any foundation.

Mr. Christensen.—I do not think we can count on having more than 20 years life out of a cement factory in India.

President.—Why, because the machinery becomes obsolete, should the buildings have to be reconstructed?

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* Statement V, Enclosure I.

Mr. Christensen.—We have just built a new smoke chamber of a different design, the old one not having lasted 10 years. The plant must be improved from time to time.

President.—Since 1904 has such a thing occurred?

Mr. Christensen.—One of our cement mills is now only used as a stand-by. Take the case of America for instance; they very often change their plans every ten years.

Mr. Ginwala.—Take the chimney for instance, that may go away, but I do not see why all the buildings should go away. You may pull down the walls but I do not see why the whole thing should be replaced.

Mr. Christensen.—Would it be a sound policy to lay down 40 years? I do not think it is commercially sound to expect the plant to go on for such a long time.

President.—That has been the experience of most of the industries in India. Tatas only charge 2½ per cent. depreciation on buildings. They have put down Rs. 5 crores.

Mr. Ginwala.—We are not concerned with the Income-tax practice. What we are concerned with is to find out what is the reasonable percentage of depreciation on buildings.

President.—I do not see how you can fix 5 per cent. as suitable for all buildings; nor have you made it clear to us that there is any particular necessity to do so in the cement industry, because the answer given in the earlier part of the written statement as to any recent improvement in the process of manufacture rather suggests that only very small improvements have been made.

Mr. Christensen.—Some of the buildings need not be renewed so often while other parts, such as smoke chambers, may require to be renewed more frequently.

President.—If some of the buildings have to be renewed there may be other parts which would stand a great deal longer. In that case you must take an all-round figure.

Mr. Christensen.—In 40 years time the buildings will not be intact in their present shape.

Mr. Ginwala.—So far as repairs and renewals are concerned they come under some other head. They are the ordinary repairs, and if you do not make these for anything like 20 years, I admit that you may have to pull them down; but you are doing something in the way of ordinary repairs, white-washing and things like that the cost of which does not appear under the depreciation account.

Mr. Christensen.—Yes, that we include in the Repairs and Renewals account.

Mr. Ginwala.—What do you say is the distance from Bundi to Bombay?

Mr. Annesley.—610 miles.

Mr. Ginwala.—From Gwalior about the same?

Mr. Annesley.—A little more, but it is rather nearer to Delhi.

Mr. Ginwala.—As regards your coalfields are you nearer—or are you about the same distance as Gwalior?

Mr. Annesley.—Gwalior is nearer.

President.—Gwalior is nearer the Bengal coalfields, and also they can bring coal from the Central Provinces.

Mr. Ginwala.—How far from the Bengal coalfields are you?

Mr. Annesley.—We are 800 miles; Gwalior would be a little less, about 600 miles.

Mr. Ginwala.—There is not much difference between the two.

In answer to question 93 you say that last year's costs were high owing to abnormal cost of coal. Taking your method of accounting, last year's costs were higher!

Mr. Annesley.—There is the question of the tonnage.

Mr. Ginwala.—But they are not high. I am comparing 1922 and 1923. The cost for 1922 was higher than 1923 but you say last year's costs were higher. The question was "Do you regard the works cost of the last year for which figures have been given as abnormally high for any other reason?" You have tried to explain why the costs were high but they were not high. We must take the total costs—Rs. 44-1-7. What was intended was that you should compare the latest costs under the various heads.

President.—This question looks forward to the future. The first part of the question is leading up to an estimate of what would normally be regarded as works cost for the future. To my mind it was not a comparison of the last two or three years. Take as a basis last year's figures, and if they are too high in your opinion in particular items, take the normal conditions and work them out.

Mr. Ginwala.—Except in the case of coal there has been a reduction in every item. There was a difference of only Re. 1 in the case of coal, whereas there was a gradual drop under every other head so that you cannot say that the cost was abnormally high.

President.—Abnormally high in this sense that they were higher than you expect them to be. That is how I took it.

Mr. Ginwala.—I take it that these forms are comparable--question 93?

Mr. Reid.—The last form gives the works cost of last year for which figures have been given. On the assumption that full capacity was to be taken, we took 65,000 tons, that comes to Rs. 37-11-0 and that explains the difference between the 1923 figures. If we take the actual production, *i.e.*, 57,055 tons it comes to Rs. 38-14.

Mr. Ginwala.—You expect to bring it down to Rs. 37-8-0? On the system on which you have given the figures, this Rs. 37-8-0 includes everything except your profits and your packing?

Mr. Reid.—If you take the form 91--I, the cost comes to Rs. 25,30,000 and Rs. 30,11,000 including the cost of bags.

Mr. Ginwala.—All this excludes bags. We want to get at the total selling price that you ought to get if you were making a reasonable profit on Rs. 37-11. We must add about Rs. 8-7-0 for bags.

Mr. Annesley.—Rs. 37-11-0 may be taken as the all in cost of cement including packing and you would be correct in adding Rs. 8-7-0 for cost of bags.

Mr. Ginwala.—That makes it Rs. 46-2. To that you have got to add a profit on the basis of the full output.

President.—You might send in some estimate* of your future costs comparable to the one which you handed in to-day. † We have got your figure of Rs. 40. Can you say to what you expect to bring the total figure down?

Mr. Ginwala.—You expect a reduction in fuel?

Mr. Annesley.—Yes.

Mr. Ginwala.—Will you bring it down to Rs. 39?

Mr. Annesley.—Yes.

Mr. Ginwala.—In Form II of the Gwalior Cement Co. which has got a production of 7,400 tons, they have shown their works cost at Rs. 40 in round figures. We will put it at Rs. 41 and take the next statement of theirs. On their full output, that is—40,000 tons in their case, they estimate Rs. 28·71 works cost.

Mr. Annesley.—Yes.

Mr. Ginwala.—And their future estimate of costs is Rs. 22·696. That is very near the figure which the President gave you, *i.e.*, Rs. 20. Now the point to which I attach the greatest importance is this. If we are to make any recommendation, normally we should base our calculations on the most efficient methods and plant, making due allowance for any disadvantages which are natural to the industry. They expect to bring their costs down to Rs. 22; they manufactured for one month at full capacity and they got very near to that figure. That includes packing so that it is a thing we have got to consider from your point of view. We could not make our recommendations on the least efficient plant, and we can only judge efficiently from the materials placed before us. If these figures are accurate you see there is a great deal of difference. That is why I was asking about the differences in power and fuel. The difference is about Rs. 7 and they only started in April 1923.

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* Enclosure III to Statement II.
† Statement V, Enclosure II.

Mr. Annesley.—Is that an accurate cost figure? One month's returns do not appear to me to be very reliable for a future estimate.

Mr. Ginwala.—This is the figure they have put in. Would you like to compare it with the Punjab costs where you have got a more recent plant? Your Punjab costs are less than the Bundi costs.

Mr. Annesley.—We cannot compare the two figures at present because the accounts of the Punjab costs are kept in a different manner.

President.—If this figure includes all your works costs, it does not matter how you divide it.

Mr. Annesley.—Their renewals are very low.

President.—No company has given a figure higher than Rs. 4½ for repairs and maintenance. Take the case of Bundi, it is only Rs. 3-9-0.

Mr. Ginwala.—The two big items of difference are labour and fuel.

President.—The most important point is that the total cost at the Punjab works is not very different from the estimate of the Gwalior people, in spite of the fact that the Punjab people have got to bring their coal from a distance.

Mr. Ginwala.—It rather points to this that your plant at Bundi is not probably as efficient as your Punjab plant or the Gwalior plant because the two big items of difference are labour and fuel and the Punjab Works do not pay any the less for fuel. Of course we might have been in some difficulty had your Punjab figures not corresponded pretty nearly to the Gwalior estimate.

Mr. Christensen.—The cost of repairs per ton usually decreases as the output increases.

Mr. Ginwala.—If you distribute the charges over 7,400 tons the incidence must be greater than if they were distributed over 40,000 tons. But I believe they have given us figures of actual working.

Mr. Christensen.—I notice their figure for cost of packing, including bags, is put down at Rs. 7 per ton. We cannot even buy bags for that.

Mr. Ginwala.—Your packing is not included? If it is, they will come up to Rs. 33-12 in the case of the Punjab Company.

Mr. Reid.—We have to add Rs. 9 for cement packing. Bags are not going to be much cheaper than they are now.

President.—That is only a question of opinion.

Mr. Ginwala.—I am bringing this to your notice to show that there are other estimates which are much lower than yours. We would like to have your opinion as to what you have to say to that.

President.—Even your own Punjab costs suggest that the Bundi costs are high.

Mr. Ginwala.—I don't think you pay much more for your coal in Bundi than in Punjab?

President.—In the Punjab you must be paying more for your coal.

Mr. Reid.—The cost price of Bengal coal is the same in both places but there is the difference in freight.

Mr. Ginwala.—As I was pointing out, the main thing is labour and coal, leaving aside the other things. Now, your figure is Rs. 15·3 per ton; that is more than half your total cost. You can compare that with the Gwalior estimate, and even if you compare that with their actuals on a very small output, that is 13·93 and on full output it goes down to 9·8, so that there is that big difference to be explained, because on the figures that you have given to us we cannot arrive at any conclusion without referring to the Gwalior people and it may be possible that they are not quite correct from your point of view.

Mr. Annesley.—How do they compare with Katni?

Mr. Ginwala.—We have not compared them. Would you mind sending us a specimen of your cost sheet, say, for one month?

Mr. Annesley.—Yes, we will send you one. *

XI.—CLAIM FOR PROTECTION.

President.—You say in answer to Question 114 "The industry is at present passing through an acute financial crisis due to production having outstripped the demand." Well, is that a reason, because after all this state of things has been created solely by the Indian manufacturers themselves? Are they entitled for that reason to say that the whole of the Indian market should be reserved for them because they are producing a great deal more cement than India can consume?

Mr. Annesley.—We are really asking for time to capture the market.

President.—Is that a reason why the tax-payers should be asked to pay? After all this state of things has been created by the manufacturers, and are they entitled to come to Government and say 'give us protection,' because sooner or later the tax-payer will have to bear some of the burden.

Mr. Annesley.—I do not see where we have asked for the tax-payer to come in at all.

President.—Let us take this particular case. Apparently you want to hold the Burma market, but it looks to me as if Indian cement cannot compete in Burma at all at present. The freight is very high and the Indian cement cannot sell in competition with imported cement. If the duty is raised to Rs. 25 a ton it seems to me that the price of cement in Burma will possibly not rise to the full extent of the duty, but it will rise to such an extent that in that particular area the tax-payer will have to pay much more. Then take the case of Madras. Of course Madras ought to be treated on the basis that it is going to be supplied by people like the Shahabad Company, or people closer to that place than you. But here in the case of Burma if a protective duty were fixed to enable the Indian producer of cement to supply their needs, then from the start the consumer there is going to be affected: he is going to pay more. Mark you, the price in Burma is already very high, higher than anywhere else, and there the people will have to pay more. Then again you will remember that there is a passage in the Report of the Fiscal Commission where they expressly point out that it is not right to arrange a scheme for protection so as to enable the Indian manufacturer to command the whole of the Indian market from one centre, the reason being that the manufacturer in, say, the Central Provinces cannot be said to have any sort of natural advantage for the supply of cement to Burma.

Mr. Annesley.—But the Kathiawad people might. It is within the bounds of possibility to get direct freight from Kathiawad to Rangoon.

President.—The Kathiawad people told us that they could never rely on getting direct freight from Kathiawad: that is what the Porebunder people said. The point is whether the fact that the Indian production has outstripped the demand is a sufficient reason why the consumer in Burma should have to pay a higher price so that they may have facilities to compete? It is a paradox in itself.

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* Not printed.

Mr. Annesley.—It is not a question of the Burma market.

President.—Yours is not the only cement concern. We have to look at it from that point of view.

Then in answer to 114 B you say " We submit that in the matter of quantity and quality the trade will in due course be able to face world competition." You do not say in the matter of price. Quantity of course you have already got; the quality is as good as the imported cement, but the vital point in competition is that you must meet the world price. This does not meet that point.

Mr. Annesley.—We say that given the full capacity we will be able to meet the world competition in prices.

President.—But there again it must be remembered that yours is the only firm in India which is working very nearly to something like its full capacity. Really, on the basis of the figure you put up, I should say again that there is very little hope unless you can bring down your costs substantially. If that is impossible you will apparently require protection indefinitely. That is one of the difficulties we are up against. If it were the case that the costs were high for a time and you expected to get a reduction so that there was a reasonable hope eventually of getting down to the world level of prices, it would be all right. But the trouble is that you do not say that. If the case for protection rested merely on your figure it would not be encouraging, because it is very difficult to see how, on the figures you put up, you could ever face competition say in Bombay without some assistance?

Mr. Annesley.—Bombay is not the natural market for our production.

President.—Do you look to the up-country market? We understood that the up-country market was negligible. You hope to develop the up-country market.

Mr. Christensen.—That was our idea at the time of building our works before the new works stepped in and spoiled our market.

Mr. Annesley.—We have endeavoured to answer the questions under this section from the point of view of the industry as a whole and not from our own individual point of view.

President.—The works cost has got to come down below Rs. 30. It must, if the industry is to face world competition. The trouble is, how is it to do if the cost of packing is over Rs. 8 a ton, and if you are going to bring your coal from such a long distance and finally if you have got to send your cement to long distances. The last difficulty might be got over by a substantial development of the up-country market.

You say in answer to Question 120 (*b*) " but no protection whatever is received owing to the transport charges between the country of production and the port of entry, as in most cases the rail freight from Indian works to ports is greater than the transport charges from country of production." That is so in the case of a certain number of companies undoubtedly, but still there are others whose case is not so. Take the companies in Kathiawar. Their freight to Bombay and Karachi is lower than the freight from Europe to Bombay or Karachi, and then there is the Sone Valley Company. Their freight to Calcutta must be lower than the freight from Europe to Calcutta. It is only about 350 miles. The freight would not be Rs. 12. All that I wish to point out is that there are some companies who have some advantage in respect of the freight on the finished product.

Then, you say in answer to Question 122 " If the protection requested is given the industry will benefit to the extent of increased consumption of Indian cement in place of the quantity of imported cement, and will be enabled to continue to develop the Indian market. Unless protection is afforded, some of the companies will be unable to market their product and will be forced to close down thereby causing loss and dissatisfaction to Indian capital." Do you think that the duty rests with the Indian Government to arrange its fiscal scheme to suit all the companies? Is that an end in itself?

That seems to be asking a good deal in a case where over production has developed on a large scale.

Mr. Annesley.—You cannot single out like that.

President.—I will then put you a further question, namely, whether if the protection asked for is given, and the present competition continues, it will be possible to preserve all the companies, unless they combine, as the internal price of cement is not regulated in any way by the price of imported cement? Supposing you prohibited the importation of foreign cement, then, unless there was a combine formed, the cutthroat competition would go on indefinitely as it does to-day, and I doubt very much whether the increased market that you would get would suffice to keep all the companies alive. The moment there was a tendency to increase the price, the consumption might drop, and you would be back again where you were. I put this point so that, if you have anything to say, you may do so.

Mr. Annesley.—The question of combination has to be considered.

Mr. Ginwala.—The moment you mention the word combination, it is possible that the consumer may have to pay a higher price. Then, he may refuse to come to your rescue.

Mr. Reid.—It will have to work its own remedy. But the price won't be raised to such a level as to interfere with the demand.

President.—We cannot exclude the possibility. The combine will do what it thinks best in its own interest. It might for the time being raise the price substantially even though the consumption went down. We cannot exclude that possibility from our consideration.

Mr. Ginwala.—Let us look at it from another point of view. Supposing you get a duty of Rs. 25 a ton, one of the objects that you have in view is that you want to capture the whole of the Indian market. The extra market which you have not captured consists roughly of 160,000 tons. But now will you capture it or will you benefit by capturing it? Will it enable you to secure a better price? After all, the price is the important thing, is it not?

Mr. Annesley.—Yes.

Mr. Ginwala.—If you don't get a better price and if you simply have a big market and a smaller rate, you don't benefit by it. Can you assure us that, if the duty of Rs. 25 a ton is put on, you will be able to secure to yourself some benefit in the matter of price.

Mr. Annesley.—We will be able to produce more cheaply.

Mr. Ginwala.—I am assuming that all the companies are anxious to get this market. So, they will all produce more. There will be still more overproduction and still greater competition.

President.—You will be able to reduce your cost. The moment you are able to reduce your cost, you will be able to cut your price.

Mr. Ginwala.—Supposing we say that this industry ought to be encouraged and recommend a duty of Rs. 25 a ton, but if it is not going to put more money into your pocket, what is the good of the proposal? I want to know how is it going to be accomplished?

Mr. Reid.—Without increasing the cost to the consumer?

President.—Supposing you have got the protection you have asked for, surely the existing companies in India will compete with each other to capture this new market. This will enable them to increase their production and therefore to reduce their costs. The moment they are able to reduce their cost, they will cut their prices again, and they will cut just a bit more in order to keep the other fellow out. Nothing more will remain in your pocket, that is the contention that Mr. Ginwala is putting to you. How is this measure to result in the Indian manufacturer receiving a larger profit?

Mr. Ginwala.—We have been asking this question ourselves. How are you going to be benefited? It will be simply a paper relief.

Mr. Annesley.—It is more than a paper relief. 120,000 tons is a considerable quantity.

Mr. Ginwala.—The chances are that everybody will rush in for the market Well, they may reduce their cost of production. At the same time they may reduce the price. The chances are that very little of the money may go into your pocket or none at all.

Mr. Annesley.- The present prices are already too low for some of us.

Mr. Ginwala.—Quite. They may be lower still when you manufacture on a bigger scale.

Mr. Annesley.—Some of the companies will have to close down.

Mr. Ginwala.—What is the good of protection then? They may as well close down now.

Mr. Annesley.—But we can sell more and produce at a less cost.

Mr. Ginwala.—Are you going to guarantee that you are not going to sell at a lower price?

Mr. Annesley.—How can I?

President.—If your cost is, say, A, it is worth while to sell at a price B. If your cost comes down to A—C, you will cut your price to B—C so long as this kind of competition continues.

Mr. Ginwala.—Unless some company is able to assure us that it will be able to benefit, it will be a very difficult matter. Assuming that you get a better price, what about creating a greater demand for the consumption of cement? Supposing the result of the proposal is that it has put some money into your pocket. That means the price of cement has risen. Would that not affect the consumption? If you have a protective duty—assuming that you get the benefit of a protective duty—it means that cement has to be sold at a higher price than now sooner or later. In that case what happens to the creation of the extra demand?

Let me put it this way. We assume that you need protection and we find that by recommending an increased duty. But the price of cement goes up and the demand comes down. Therefore it is not advisable, in our opinion and we make the alternative proposal of giving a bounty. How are you going to distribute your bounty? The market you have got to capture is at the ports. On what basis are they to give you a bounty which would enable you to get the money. If you take the money from Government and give it away to the consumer you don't benefit by it very much. We can only recommend a bounty of so much on production. On that basis, how are we to distribute bounties? If we allow a bounty of Rs. 15 a ton, what would you do with the bounty? Will you make a present of it to the consumer? One thing may happen and that is this: that by transferring the bounties to the pockets of the consumer, you cheapen the cement and thereby you may increase the demand eventually. That is possible and it seems to me that if the country intends to protect, it may do so for that purpose. But is that a reason for your asking for protection? You ought to tell us how we are to get over these difficulties?

Mr. Christensen.—The main point is that the various companies will be much better off than now, if they are able to produce and sell fifty or hundred thousand tons of cement more in India.

President.—Until you reach the stage when production and consumption are in some sort of equilibrium, I do not at present see how you will derive any benefit unless you form a combine. Once you do that, there will be a benefit of course.

Mr. Annesley.—Combination will remove competition to some extent.

Mr. Ginwala.—Let me put it in another way. Suppose Government say "there is the equipment in the country for the manufacture of 600,000 tons of cement and it is a pity to allow this organisation to come to grief. We must create a demand for cement by making it cheaper. At present they are manufacturing 250,000 tons a year. We shall give a bounty on any excess that they may produce over 250,000 tons." Will that be a good proposition?

President.—It would be necessary to fix a separate minimum for each company.

Mr. Ginwala.—That would enable you to produce on a larger scale and at the same time would enable you to sell without increasing the price. The main thing is to cheapen cement.

President.—Then you would be entitled to expect a fairly rapid increase in consumption overtaking the production. That is certainly a way one would choose to do it.

Mr. Ginwala.—There is an increase of 30,000 to 40,000 tons a year roughly. If you go on increasing say by 80,000 tons a year and a bounty is paid on that, would not that help the industry and at the same time create a demand for more cement?

Mr. Annesley.—That might be the case, but to increase the consumption of Indian cement, the imported article should be prohibited, or at any rate only be permitted to compete at the ports on equal terms, by the imposition of a suitable duty.

Mr. Ginwala.—You can stop it by offering your cement at Rs. 10 a ton cheaper.

Mr. Annesley.—That would materially assist, but we submit it would be a hardship on the Indian manufacturer, whereas if imported cement was made dearer to the consumer by the imposition of a duty it would encourage the use of the indigenous product.

President.—If it is not a question of price, what is the object of putting on a higher duty?

Mr. Ginwala.—Let us assume that the bounty is equivalent to the duty. If I am getting a bounty of Rs. 10 a ton, I may sell it at the ports for Rs. 10 less.

President.—If Rs. 25 a ton is required to enable the Indian companies to secure the whole of the Bombay market it will not enable them to capture the Burma market. If it is sufficient to capture the Burma market, it must be a good deal more than is needed to capture the Bombay market.

Mr. Annesley.—Is it not possible to have two rates, one for Bombay and one for Burma?

President.—No, it is not. If you want to capture the whole of the Indian market and if Rs. 25 is sufficient to do that, it follows that that is intended to enable you to capture the Burma market. That would be a new principle which has not been accepted in the case of the steel industry. The duty that has been put on steel will not enable the Tata Company to capture the Burma market.

Mr. Ginwala.—Supposing a bounty on this minimum was given, will it accelerate the demand in any way?

Mr. Annesley.—I cannot say.

President.—You want an extra Rs. 16 a ton. Unfortunately you are working very nearly to your full capacity. Let us suppose a company whose maximum capacity is 100,000 tons is producing only 30,000 tons. Rs. 16 a ton on production in excess of 30,000 tons would be a substantial benefit.

Mr Ginwala.—Of course it can be done gradually. You cannot jump all of a sudden from 250,000 tons to 650,000 tons, but it is just possible every year that you can go on increasing your production.

Mr. Annesley.—Till the consumption overtakes production?

Mr. Ginwala.—Yes.

President.—There are two ways of reaching the equilibrium. One is by producing less and the other by producing a rapid increase in the consumption owing to the price coming down further.

Mr. Ginwala.—Take your works in the Punjab. Your capacity there is 30,000 tons. At present you are only manufacturing 20,000 tons. We say "on the other 10,000 tons we will give a bounty of Rs. 15 a ton." If a man says 'if you don't reduce your price by Rs. 5, I won't take it,' you may say 'I will reduce it by Rs. 5' and you keep the balance. In that way, it may be possible to use the whole of your equipment instead of shutting down a portion of your plant.

Mr. Reid.—Would not a similar amount go to the other companies?

Mr. Ginwala.—But you have a big margin there.

Mr. Annesley.—So will the other companies have.

Mr. Ginwala.—Undoubtedly. You transfer your loss to the pocket of the tax-payer.

Mr. Annesley.—The proposed bounty scheme will increase taxation which we never considered within the bounds of probability.

Mr. Ginwala.—So far as we are concerned it does not matter to us whether it involves taxation or not. If we find that a bounty is a suitable way of helping the industry, we should recommend it. Our work stops there. We are not concerned whether the country can find the money or not. You can consider these points and then give your opinion. Every one of these proposals has got its own difficulty. If you can suggest some course by which we can overcome the difficulty we shall be glad.

Mr. Kale.—In answer to Question 114 (*b*) you base your claim upon the ground that the industry is at present passing through an acute financial crisis. I expected you to say that the industry had already been developed. The trouble is that the industry is over-developed. Protection is needed very often for encouraging an industry to get established, to attract capital to an industry, to get trained men and so on. That you have already got. So it is not a question of developing an industry, but it is a question of preventing it from going under. Luckily for the country the industry is already there. the capital is already there. Will it not be on the whole a serious loss to the nation that such a necessary industry should be allowed to go out of existence? I expected you to put that sort of argument, but, as you have not put it, I do not know whether you will attach any importance to that kind of argument.

Mr. Annesley.—That idea is touched on in answer to Question 116.

Mr. Kale.—It is another point altogether, whether the industry is important from a national point of view. All claims to protection presuppose that it is desirable to develop the industry in the country. Is it not that because you are in financial difficulties you need protection? The industry is already there. You want the country help it to tide over certain difficulties. That would naturally have been the case for the industry?

Mr. Reid.—At the end of our answer to Question 122 we have touched on that point. We say "Unless protection is afforded, some of the companies will be unable to market their product and will be forced to close down thereby causing loss and dissatisfaction to Indian capital, and a consequent set-back to the development of the country on industrial lines."

Mr. Kale.—That is a different question.

President.—Do you accept Professor Kale's argument as a reasonable way of making the case? It is obvious that what the industry wants is not development.

Mr. Kale.—The condition laid down by the Fiscal Commission was this, that without the help of protection, the industry is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country.

President.—I should certainly say that the industry has already developed.

Mr. Annesley.—I understand Professor Kale's point. I think it is a reasonable one.

Mr. Kale.—There is another point to which I want to draw attention. If protection is granted to you as you propose, there are two things that are likely to happen. Either you will have to combine, in which case it will be a sort of a monopoly, that is to say, you will be able to dictate prices to the consumers, and then Government will be expected to fix a price. It will be a very difficult thing for Government to say 'now that you are protected you are not to charge a higher price than the price we fix.' Naturally, protection will have to be accompanied by a safeguard like that, because many of those who are seeking protection for cement have claimed that they will not raise prices. But what guarantee is there? Some sort of guarantee would have to be given to the consumer?

Mr. Annesley.—We expect some sort of restriction like that.

Mr. Kale.—How is that restriction about prices going to be imposed by Government in the interests of the consumer? Will the Government say that cement is not to be sold at a price higher than a particular price? How will that price be fixed? That is the difficulty which Government will have to face and the Legislature will have to face. Have you anything to suggest?

Mr. Annesley.—If there was an attempt to raise prices to any extent the question would have to come up for consideration at once. You are talking about a combination which at present does not exist, and which has not got beyond a tentative, or even I might say a "suggestive," stage.

Mr. Kale.—Don't you think that it is better to devise some safeguards beforehand? What do you suggest? Can you give protection first and then meet difficulties as they arise? Will it not be better to anticipate difficulties and to provide against them beforehand? That is why we ask you whether you have any ideas as to safeguards, and we all know what are the evils of the system of controlling prices.

President.—One possible reply is that, once there is a combine, the state of things will be as they exist with the steel industry. It is for you to say. Do you regard a demand of this kind for the regulation of price as a probable result of protection?

Mr. Annesley.—It all depends so much on the prices rising to a point where automatically the demand suffers. In that case you have to regulate the price so as not to stifle the demand.

President.—Ordinarily it is the case that protection is intended to raise the price to the full extent of the duty. Therefore there is no particular reason for providing against it. It seems to me that the only basis on which regulation would be wanted is that this duty of Rs. 25 is excessive.

Mr. Kale.—The manufacturers claim that, if a Rs. 25 per ton duty is imposed, they are not going to raise the price of cement to that extent. That is what they are claiming.

Mr. Ginwala.—Then what is the good of giving protection?

Mr. Kale.—Will you suggest that the Legislature should lay down a certain scheme of combination in this country and lay down the price? That is the alternative?

Mr. Annesley.—Then it becomes a Government industry.

Mr. Kale.—You are opposed to it?

Mr. Annesley.—We do not think it is possible for the moment.

Mr. Kale.—Supposing it was possible for Government to lay down a price and say "if you are prepared to accept this, we are going to protect the industry: otherwise no;" what do you suggest?

Mr. Annesley.—It will be Government control, would it not?

Mr. Kale.—Mr. Ginwala was asking you some questions about bounties. There is another alternative and that is this. Supposing Government helped you by bearing a part of the cost of transport that you have to bear, that is one way of helping the industry by lowering the price of coal and of the finished article. Your difficulty is the high cost of transporting coal. Supposing it was reduced by Rs. 6 or Rs. 8, that would be a very important relief, and will get rid of the other difficulties we have been discussing. Suppose such a scheme was practicable of helping the factories on a certain basis by reducing the cost of transport of coal, do you think that would be a proper way of helping the industry rather than imposing a very high duty which as we have seen is not likely to help the industry very much?

Mr. Annesley.—That would assist.

Mr. Kale.—If that help were substantial from the point of view of the total cost then you do not think that an addition of import duty would be necessary because that would come in lieu of the additional import duty. In any case to some of the factories it will be a great relief, to those which are distant from the coalfields.

President.—Would it not be open to the same objection that the price will be cut? The moment the transport cost goes down and remains at that point, they will cut their price. So far as the producer is concerned it would not be a gain, and therefore would be open to the same objection as Mr. Ginwala pointed out.

Mr. Ginwala.—At the same time it would not stimulate production which is the chief object of protection.

President.—The only way to induce production is by making the prices attractive. Is not this another difficulty? You have got to arrange your scheme in such a way that you do not compete with those companies which are most favourably situated. Supposing the mileage rate was reduced to half, your cost would drop to something between Rs. 6 and Rs. 7 from Bombay. Take the case of another company which is half the distance from Bombay. If its rates were reduced to half, it would have an advantage over you by Rs. 6 a ton. Is there not a difficulty there?

Mr. Annesley.—You put the same mileage figure.

President.—Why should the companies that are most distantly situated be favoured at the expense of those which are more advantageously situated?

Mr. Kale.—In spite of combination, what is likely to happen is that there will be a war for the survival of the fittest. That will be the result so far as I see the condition of the industry. I expect that Government might give what is regarded as reasonable assistance by reducing the cost of freight and so on and leave the companies either to combine or fight it out; and ultimately there will be a survival of the fittest according to geographical and other advantages. The difficulty is that for many years you cannot increase the consumption, and, if the demand or consumption is to be increased, the price will have to be very low and you won't get any profit.

Mr. Annesley.—The doctrine of the survival of the fittest must apply.

Mr. Kale.—Those who claim protection should not run away with the idea that any protection that is given will enable all companies to survive.

Mr. Annesley.—Yes.

Witness No. 7.

PUNJAB PORTLAND CEMENT LIMITED.

Agents.—Messrs. Killick, Nixon & Co.

A.—WRITTEN.

Replies to questionnaire (1) (a) received from the Punjab Portland Cement Limited, dated 20th June 1924.

In continuation of our letter No. BHL 67/6137 dated the 16th June and with further reference to your letter No. 471 dated the 12th *idem* we now beg to send herewith our reply (with five spare copies) to the Questionnaire which has been drawn up by the Tariff Board in connection with their enquiry into the Cement Industry.

REPLIES TO QUESTIONNAIRE.

I.—INTRODUCTORY.

1. Punjab Portland Cement Limited was established on the 21st April 1920. It is a public Registered Company incorporated under the Indian Companies Act VII of 1913.

2. The Capital held by Indians in the above Company is Rs. 15,98,170 out of subscribed Capital of Rs. 35,00,000, *i.e.*, 45·662 per cent. of the Capital.

Out of eight Directors four are Indians.

There are six Indians employed in superior posts.

3. Manufactures Portland cement only.

4. In July 1923.

5. 36,000 tons cement per annum.

6. A full year has not elapsed since the Company commenced to manufacture Portland cement but the monthly output has now reached the full capacity of 3,000 tons.

7. The factory is situated at Wah near Hasan Abdal, Attock District, Punjab.

(*a*) The limestone is won from a quarry close to the Works and clay obtained from pits adjoining the Works.

(*b*) The major portion of the Company's coal requirements are drawn from the Bengal coalfields which are some 1,250 miles away, the freight being about Rs. 15 per ton. A limited quantity of coal is obtained from the Makerwal collieries which are only about 125 miles away but the supplies are cut off when the River Indus is in flood and other factors cause the supply of the coal from this source to be uncertain.

(*c*) Yes.

(*d*) We have no complaint against local labour but being agriculturists they are not taking very readily to factory work.

We consider the most important factors in selecting the site of a cement factory in India are close proximity to the raw materials and if possible near the larger markets.

8. All cement manufactured is Portland cement conforming to the British Standard Specification (Revised 1920).

9. (*a*) Yes.

(*b*) The cement manufactured is Portland cement only to the British Standard Specification. We consider the British Standard Specification suitable for Indian conditions except that some modification should be made in view of the higher temperatures ruling in this country.

10. (*a*) Yes.

(*b*) No.

(*c*) Reluctance on the part of Engineers in India who have been accustomed to use imported cement with a record of numerous tests both in the laboratory and in actual use available over a long period, to make use of an article which has not yet had time to acquire a similar reputation.

II.—RAW MATERIALS.

11. Limestone, clay and gypsum.

12. (*a*) and (*b*) Based on the present output of 36,000 tons per annum which is the full capacity of the plant.

	Tons.
Limestone	36,500
Clay	12,000
Gypsum	1,800

13.

Limestone	1 ton.
Clay	⅓rd ton.
Gypsum about	1 cwt.

Percentage of wastage.

(*a*) Before calcining	*nil.*
(*b*) During calcining	33½ per cent.
(*c*) After calcining	1 per cent.

14. Slurry consists of ground limestone and clay and water. To make one ton of clinker 1⅓ ton of limestone and clay is required.

15. Practically no further loss from above except from a small amount of dust escaping during grinding.

16. Limestone from a hill situated close to the Works and clay from pits also contiguous to the Works.

17. The limestone beds are broken up by blasting and the broken stone transported in tipping tubs to crushers.

The clay is dug out by manual labour and transported by the same method to the plant.

18. The lease stipulates for about annas eight per ton of cement to be paid to private persons.

19. (1) Royalty annas eight per ton.

(2), (3) and (4) Rs. 825 per ton.

20. The Company holds a 29 year lease over certain lands including the areas in which the Limestone quarry and clay pits are situated. The terms are considered reasonable.

21. The Raw Material is uniform but quarry working is only in the initial stage.

22. So far we have not found the Raw Materials deficient in any respect.

23. We anticipate an ample supply of limestone during the full term of the Lease.

(*a*) Yes.

(*b*) Yes.

24. No.

25. No.

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26. No.

27. No.

III.—Labour.

A. *Quarry labour.*

28. The limestone quarry is at present worked by a contractor at a cost of Re. ·825 per ton delivered at crusher.

29. The contractor provides adequate labour.

30. Labour is mostly indigenous and except during Roza has been sufficient for our requirements.

31. (*a*) Only very little training required for this kind of work.

(*b*) Yes.

B. *Factory Labour.*

32. Skilled supervision is required at first but workmen have been and are now being specially trained in the Works. We have no imported factory labour at present.

33. No imported labourers are employed by us although the factory is working at very nearly fullest capacity.

34. The Company first imported an experienced Cement Burner to train the local maistries who have now attained a sufficient standard of expertness to efficiently cope with the work. Apprentices are being employed in the workshops and trained as artificers.

35. No data available.

36. About 800 hands are employed in and round the factory and including the labour engaged in loading and unloading of stores, coal, cement and miscellaneous works.

Average rate of wage for unskilled labour is 12 annas per diem. Skilled in supervision of Mills and Kilns from Re. 1 to Rs. 3 per diem.

37. Figures not yet available as the Company has not completed one year's working.

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38. (*a*) Yes.

(*b*) Mainly from the vicinity of the factory.

39. (*a*) Yes.

(*b*) We are informed by our supervisors that the standard of efficiency is much lower than that of the hands employed in western countries.

40. Practically all employees are housed in quarters provided by the Company, with free lighting, water and medical attention. Certain employés live in their own villages in the vicinity of the Works.

IV.—Power (Including Fuel).

41 and 42. The power used in the factory is electricity generated at the Company's own Power House. The cost is approximately ·65 annas per unit.

43. The power is generated from a Steam Turbine, driven from Babcock and Wilcox Boilers which burn coal. The battery of boilers consumes about 700 tons of Bengal coal per month. At times the supply of coal is restricted owing to irregular wagon supply.

44. From 2·5 to 3·4 lbs. of coal per unit generated. The variation being due to the quality of the coal available.

45. The majority of coal is obtained from Bengal collieries about 1,250 miles distant. The price varies from Rs. 6 to Rs. 12 per ton free on trucks. Costs of transport about Rs. 15 per ton. A small quantity of coal

is obtained from Makerwal collieries about 125 miles distant at a cost of about Rs. 11 per ton free on trucks. Cost of transport Rs. 5 per ton.

The consumption in the Kiln is about 800 tons per month.

46. The Company does not own any source of fuel supply.

47. Does not apply to this Company.

V.—MARKET.

48. The total Indian production of cement during the year 1923 was 2,35,229 tons.

49. During 1923 the total consumption of cement in India was about 3½ lakhs of tons.

50. The demand should slowly increase as the country develops, also as the various practical uses of cement become more widely known as the result of propaganda, and the cheaper price brings it within the scope of the smaller consumers. With the disappearance of foreign cements from the markets the prejudice against Indian manufactured cement would tend to diminish, which would bring about an increased demand.

51. This Company is under Agreement with the Secretary of State for India in Council to supply cement for a period of seven years from 1st April 1924 to the Punjab Government including Irrigation Branch, Public Works Department, North Western Railway, Military Works Service, Northern Command, etc. During the short period that the factory has been running the greater part of the production has been consigned to the following centres. The relative distances from the Works are shown against each:—

		Miles from Punjab Works.
Rawalpindi		29
Peshawar		79
Bannu		209
Khirgi		246
Sialkot		174
Lahore		209
Ferozepore		267
Amritsar		236
Fazilka	For Sutlej Valley Project.	313
McLeodganj		330

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52. These works were originally designed to supply the anticipated demand from the Punjab Government for irrigation and other works. In the Punjab foreign cement has never made very great headway owing in the main to the long distance from the point of import making its cost, owing to the high railway freight, prohibitive when compared with local competing materials.

53. Export should be possible to Iraq, East Africa and Ceylon but is improbable owing to the low rate of freight from Europe enabling surplus quantities of cement from the factories there to be delivered at cheap rates at the Ports of those countries.

In the case of this Company, situated as it is remote from any possible point of export the question hardly arises as there are so many Companies whose geographical position should enable them to lay down their product at the port of export considerably below the rate for any surplus this Company may have to dispose of, which would have to pay very heavy railway freight.

54. The cement manufactured by this Company is taken by Government (Public Works, Military Works) also Railways and to a limited extent by

Public Bodies but owing to the difficult financial situation since the Company started producing, the latter have not had any extensive programme. The remainder of this question does not call to be answered by this Company as it has only recently started operations.

VI.—FOREIGN COMPETITION.

55 to 62. In order to avoid duplication, we refer the Tariff Board to the replies given to the eight questions 55 to 62 furnished in this connection by Bundi Portland Cement Limited in reply to the Questionnaire, as in the main the principles apply to this Company though actually its geographical situation should preclude any competition from foreign cement within its sphere. If foreign cement enters India in large quantities the effects would be felt by reason of the congestion of the markets by the Indian and foreign products.

63 and 64. The principal market for this Company should be the districts round Lahore on the south and Peshawar on the north. We give below cement railway freights to Lahore and Peshawar and also railway freights on imported cement from Karachi to these places.

From Wāh.

	Rs.	A.	P.	
To Lahore	6	10	8	per ton.
To Peshawar	2	14	10	per ton.

From Karachi.

	Rs.	A.	P.	
To Lahore	18	2	8	per ton.
To Peshawar	21	2	4	per ton.

65. We have no evidence.

66. We consider that this Company is at a disadvantage in the following respects:—

(*a*) The high price paid for plant and machinery which was purchased at the conclusion of the Great War when prices were unduly inflated. It was anticipated then that Government's immediate demands for cement would be heavy, which has not proved to be the case, nor have the prices then budgetted for been realised.

(*b*) Yes. Expert labour for construction of works and new plant has to be brought out at high rates for a short term.

(*c*) The local labour is taking longer than anticipated to get use to the novel factory conditions.

(*d*) The Company is at no disadvantage in this respect.

(*e*) As regards consumable stores, heavy railway freight has to be paid on coal and all other stores.

(*f*) No.

(*g*) Owing to the periodical wagon shortage it has been necessary to maintain a large stock of coal and spare parts.

(*h*) The tariff naturally places this Company at a disadvantage when compared with the foreign manufacturers.

(*i*) Indian Capital is at present extremely averse to industrial enterprise. To complete its works, the original estimates having been considerably exceeded this Company has had to raise Debentures at 8 per cent. We also suffer from periodical "wagon shortage" affecting our coal supplies, necessitating accumulation of heavy stocks entailing lock up of Capital and consequent loss of interest.

67. The temporary disadvantages referred to in the preceding paragraph are likely to recur annually until the Railway question is solved.

68. (*a*) This Company is certainly at a disadvantage in regard to its remote location from the Bengal Coalfields.

(*b*) No.

69. (*a*) Yes.

(*b*) 30,000 Tons.

70. The manufacture of Portland cement certainly involves the use of elaborate intricate and expensive machinery to cheapen production.

71. About 46 per cent. of the Capital outlay of this Company has been incurred on Plant and Machinery.

72. Electrical machinery has been supplied by Daniel Adamson and Mather and Platt. The kilns, grinding machinery, slurry mixing plant were supplied by F. L. Smidth & Co., of London and Copenhagen and the crushing plant by Hadfield Ltd., and is the latest type of plant for manufacturing Portland cement by the wet process.

73. We consider the machinery and other equipment absolutely up to date.

74. Improvements have been made in the grinding processes.

75. Does not apply to these Works.

76. We do not contemplate any at present.

77. It has been our custom to get all steel plate and fabricated steel work which does not require special machinery made in India in order to reduce Sea Freights

VIII.—CAPITAL ACCOUNT.

		Rs.
78.	(*a*) Rights and concessions	4,20,000
	(*c*) Buildings	20,37,241
	(*d*) Machinery plant and kiln	25,26,321
	(*e*) Miscellaneous assets	11,34,136

79. The figures given in answer to Question 78 represent the actual cost of various assets, no amount has been reserved for depreciation as the completed plant has only been running nine months.

80. This question does not apply as one complete year has not yet elapsed since manufacturing commenced.

81. Estimated present day total cost of new factory, Rs. 50 Lakhs.

There should be no material differences in the operating costs.

82. The plant and machinery were purchased in the years 1920-23 and paid for at various rates of exchange concurrently with the delivery of machinery.

83. (*a*) Rs. 50,00,000, Authorised Capital.
(*b*) Rs. 35,00,000, Subscribed Capital.
(*c*) Rs. 35,00,000, Paid up Capital.

Authorised Capital is divided as under:—

Rs. 40,00,000 divided into 4,00,000 Ordinary Shares of Rs. 10 each.
Rs. 10,00,000 divided into 1,00,000 Preference Shares of Rs. 10 each.

Subscribed Capital is divided as under:—

Rs. 30,00,000 divided into 3,00,000 Ordinary Shares of Rs. 10 each.
Rs. 5,00,000 divided into 50,000 Preference Shares of Rs. 10 each.

84. Interest at 7½ per cent. per annum is payable on the Preference Shares. These shares are entitled to cumulative Dividends as from 21st June

1920. Dividends to the extent of Rs. 1,01,024-7-2 are in arrears up to the close of the last financial year, *i.e.*, 30th September 1923.

85. This question does not apply to this Company.

86. This question does not apply to this Company.

87. This question does not apply to this Company.

88. A Debenture Loan of Rs. 25,00,000 bearing interest at the rate of 8 per cent. per annum was issued on 1st March 1924 and is redeemable on 1st March 1934. No Debenture Sinking Fund has been established.

89. This question does not apply to this Company.

90. We estimate we should require 10 lakhs to extend the plant to permit of the output being doubled.

IX.—COST OF PRODUCTION.

(*a*) *Works Costs.*

91, 92, 93 and 94. The information desired is not available as this Company has not completed one year's working.

95. No.

(*b*) *Overhead Charges.*

(*i*) Depreciation.

96. The rates of Depreciation allowed by the Income-tax Authorities are as follows:—

Buildings	@ 2½ and 5 per cent.
Water Works	@ 5 per cent.
Machinery and plant	@ 7½ per cent.
Tramways	@ 5 per cent.
Furniture	@ 5 per cent.
Electric installation	@ 7½ per cent.
Live stock	@ 5 per cent.

We suggest that the rates on Crushing and Grinding Machinery should be increased to at least 10 per cent. owing to the unusually heavy wear and tear. On buildings a minimum of 5 per cent. should be allowed owing to the tendency for buildings to become obsolete and uneconomical owing to changes in the process of manufacture.

97. At the cost values, as at 30th September 1923, at Income-tax Schedule rates the amount of Depreciation should be:—

		Rs.	A.	P.
(*a*)	Buildings @ 2½ per cent.	50,931	0	0
	Machinery, plant, kilns @ 7½ per cent.	1,89,474	0	0
	Sidings and tramways @ 5 per cent.	4,634	0	0
	Water works @ 5 per cent.	5,840	0	0
	Electric plant and lighting installation @ 7½ per cent.	46,135	0	0
	Road, bridges and fences @ 5 per cent.	329	0	0
	Furniture and fixtures @ 5 per cent.	1,141	0	0
	Stores and spares @ 5 per cent.	12,735	0	0
	Loose tools @ 5 per cent.	1,268	0	0
	TOTAL	3,12,487	0	0

(*b*) This question does not apply to this Company.

At proposed new rates given in answer to question No. 96:—

	Rs.	A.	P.
Buildings @ 5 per cent.	1,01,862	0	0
Machinery, plant and kilns (other than Crushers) @ 7½ per cent.	1,54,822	0	0
Crushing and grinding machinery @ 10 per cent.	46,200	0	0
Sidings and tramways @ 5 per cent.	4,634	0	0
Water works @ 5 per cent.	5,840	0	0
Electric plant and lighting installation @ 7½ per cent.	46,135	0	0
Roads, bridges and fences @ 5 per cent.	329	0	0
Furniture and fixtures @ 5 per cent.	1,141	0	0
Stores and spares @ 5 per cent.	12,735	0	0
Loose tools @ 5 per cent.	1,268	0	0
TOTAL	3,74,966	0	0

98. Sum required annually for Depreciation at Income-tax rates:—

	Rs.
Buildings	67,500
Machinery	1,72,500
TOTAL	2,40,000

99. 97 (*a*) and (*b*), Rs. 8-11-0.
98, Rs. 6-11-0.

(*ii*) Working Capital.

100. (*i*) and (*ii*) about 7½ lakhs.

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101. We have found it convenient for the Company to have a cash credit at the Bank in order to finance outstandings and the large stocks of coal and other stores it is necessary to maintain. At times the overdraft has been found to run as high as 9 lakhs.

102. The Company's cash credit with the Bank carries interest at 1 per cent. over "Bank Rate" with a minimum of 6½ per cent per annum.

103. Rs. 7½ lakhs as compared with 1½ lakhs.

104. Average value of stock of cement in hand is about Rs. 90,000. Average time elapsing between production and payment has been four months.

105. The Company finds it necessary to hold about 3,000 tons of coal (two months' supply) at an average value of Rs. 75,000.

(*iii*) Agents' Commission and Head Office Expenses.

106. The Company's Head Office is in Bombay. The Company is managed by a firm of Agents subject to the control of the Board of Directors.

107. The information desired cannot be furnished as one year's working has not yet been completed.

108. The Agency Agreement provides for a commission at the rate of 10 per cent on the profits for each year.

109. First year of production not completed.

X.—MANUFACTURER'S PROFITS.

110. We consider 12½ per cent. per annum about the average required on Ordinary Shares—On Deferred Shares we should expect 30 per cent. per annum or nothing.

111. (*a*) 7½ per cent. per annum on Preference Shares.
(*b*) 8 per cent. per annum on Debentures.

112. 12½ per cent per annum.

113. On the present rate of output which is approximately equivalent to the full capacity of the plant—

(*a*) Re 1-0-0 per ton.

(*b*) Rs. 2-13-0 per ton (including arrears of Cummulative Preference Dividend to date 30th September 1923).

(*c*) Rs. 5-10-0 per ton.

XI.—CLAIM FOR PROTECTION.

114 to 122. In order to avoid duplication of work we refer the Tariff Board to the replies given to the 9 questions 114 to 122 furnished in this connection by Bundi Portland Cement Limited in their reply to the Questionnaire, as in the main the arguments for protection apply on behalf of the Cement Industry generally. In the particular instance of this Company we realise that its exceptional geographical position should render it practically immune from competition from foreign cements, except indirectly.

This indirect competition would be caused by the invasion of the markets within this Company's particular geographical sphere by other Indian Companies who might be forced to dispose of a portion of their production at low rates owing to their inability to face the competition of Foreign cements at the principal Indian Ports except at a severe loss.

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Statement II.—Further statements submitted by the Punjab Portland Cement, Limited, dated 12th July 1924.

In continuation of our letter No. B. H. L. 67-7078 of the 10th instant, we now enclose statements * showing what it actually cost Punjab Portland Cement, Limited, to manufacture 13,418 tons for the half-year ended 31st March 1924.

In disclosing our manufacturing costs to the Board we desire to reiterate our previous request that the figures be treated as most private and confidential and not made public in any manner. †

Enclosure.

PUNJAB PORTLAND CEMENT, LIMITED.

Actual cost of bags.

Cost of bags as per contract	Rs. 38 0 0 per 100 bags
Freight	Rs. 5 15 9 per 100 bags
	Rs. 43 15 9 per 100 bags

= Rs. 8-12-9 per ton of Cement (20 bags).

Statement III.—Supplementary statement, dated 3rd September 1924, from the Punjab Portland Cement, Limited.

We beg to give the following additional information to certain questions: —

Evidence of 22nd July.

(*a*) *Answer to question 19.*—In confirmation of our oral evidence and to fully explain how the Company's royalty is assessed we enclose extract from the Company's lease.‡

(*b*) We also enclose revised cost statements§ and would request that these be substituted for the statements which accompanied our letter of the 12th July.

We think this is all the information that the Board desired us to supply but shall be happy to comply with any further wishes they may have in this respect.

Enclosure I.

Extract from lease, dated 24th August 1920, between Sirdar Sikandar Hyat Khan, Messrs. Killick Nixon and Co., and Punjab Portland Cement, Limited.

Part V.—Royalty reserved by the lease.

1. The lessees shall pay to the lessor a royalty of six annas per ton upon each ton of finished cement manufactured at and despatched from

---

* The statement showing the cost of bags has been printed, but not the other statement, as this was subsequently revised—see Statement III (*b*).

† This stipulation was subsequently withdrawn in the oral examination.

‡ Enclosure I.

§ Enclosures II and III.

the works of the lessees subject to the provisions in favour of the lessor that during the period of the construction of the lessees' works and until the same are in operation and finished cement is first turned out therefrom the lessor shall be entitled to an annual payment by the lessees of rupees ten thousand and that if when the return to the lessor shall be based upon royalty the lessees shall not have installed a plant capable of turning out fifty thousand tons of finished cement per annum or shall not turn out fifty thousand tons of finished cement per annum the royalty of annas six per ton so to be reserved to the lessor as aforesaid shall be proportionately increased so that the amount of royalty shall in no case be less than rupees eighteen thousand seven hundred and fifty per annum.

Enclosure II.

PUNJAB PORTLAND CEMENT, LIMITED.

FORM I.

Statement showing the total expenditure on the production of cement during 1923.

(See Question 91.)

	Rs.	A.	P.	Rs.	A.	P.
1. Raw materials	12,851	0	0			
Royalty	9,375	0	0	22,226	0	0
2. Factory Labour	...			48,126	0	0
3. Power and fuel	...			1,49,307	0	0
4. Repairs and maintenance	...			43,027	0	0
5. General services, supervision and local office charges	...			45,043	0	0
6. Insurance	...			4,150	0	0
7. Cement bags	1,18,036	0	0			
Stores and oil	27,735	0	0	1,45,771	0	0
TOTAL				4,57,650	0	0
Commission on sales paid to Sub-Agents				15,613	0	0
GRAND TOTAL				4,73,263	0	0

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Total production of cement for the year 13,418 tons.

Enclosure III.

PUNJAB PORTLAND CEMENT, LIMITED.

FORM II.

Statement showing the works cost per ton of cement during 1923.

(See Question 91.)

	Rs.	A.	P.	Rs.	A.	P.
1. Raw materials	0	15	4			
Royalty	0	11	2	1	10	6
2. Factory labour	...			3	9	2
3. Power and fuel	..			11	2	0

	Rs.	A.	P.	Rs.	A.	P.
4. Repairs and maintenance	...			3	3	4
5. General services, supervision and local office charges	...			3	5	7
6. Insurance	...			0	4	11
7. Cement bags	8	12	9			
Stores and oil	2	1	1	10	13	10
TOTAL				34	1	4
Commissions on sales paid to Sub-Agents				1	2	7
GRAND TOTAL				35	3	11

Statement IV.—Further supplementary information submitted by the Punjab Portland Cement, Limited, dated the 2nd February 1925.

We have the honour to acknowledge receipt of your telegram of the 31st ultimo and enclose herewith copy of our reply thereto giving you the following information :—

	January/December 1924.	
	Output. Tons.	Despatches. Tons.
Punjab Portland Cement, Limited	31,600	31,600

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PUNJAB PORTLAND CEMENT, LIMITED.

B.—Oral.

Oral evidence of Messrs. F. C. ANNESLEY, E. C. REID and E. CHRISTENSEN, recorded at Simla on the 22nd July 1924.

President.—The coal has got to come from 1,200 miles except a small portion that you get from the Makerwall collieries?

Mr. Christensen.—Yes.

President.—I see that Rs. 15 per ton works out to one-twelfth of a pie per maund per mile?

Mr. Christensen.—Yes, about that.

President.—What proportion of the coal you use do you get from the Makerwall collieries?

Mr. Christensen.—We have only just started to use it, and it is hardly possible to state anything definitely. It may be to the extent of 25 to 30 per cent. At present we are experimenting with it.

President.—I take it that it would be used almost entirely in the boilers, or would you also use it in the kilns?

Mr. Christensen.—Both in the boilers and partly in the kiln by making a mixture with Bengal coal.

President.—That would of course make a substantial difference to your costs.

Mr. Christensen.—As already stated we are carrying on experiments to enable us to see to what extent we can use it.

President.—Are you within range of any of the projected hydro-electric schemes?

Mr. Christensen.—I don't think we are.

President.—Have you heard of any large development that would cover the area where you are?

Mr. Christensen.—No.

President.—Is there any possibility of your using oil from the Attock Oilfields?

Mr. Christensen.—I understand it is a question of price.

Mr. Annesley.—I don't think they have got any residue to sell.

Mr. Christensen.—The usual oil used in the cement works is the residue of the crude oil after the petrol, kerosine and other matters have been extracted.

President.—To what extent can you use oil, and to what extent is coal indispensable?

Mr. Annesley.—The plant has been so designed that we can turn over to oil without any very heavy expenditure in case the price of oil goes down, and compares favourably with coal prices.

President.—To what extent can you use oil?

Mr. Christensen.—We can use oil entirely on the kilns as well as on the boilers.

President.—I quite understand that at present the position is uncertain, but have you ever made any calculation as to the difference in the cost that it would make?

Mr. Christensen.—Not recently. But we estimated at one time that if we could get oil at Rs. 45 a ton it would pay us to instal the necessary pumps, pipes, tanks, etc.

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President.—Rs. 60 a ton was the price which was communicated to you then?

Mr. Christensen.—Yes.

President.—Would the quantity of oil required be smaller than the quantity of coal?

Mr. Christensen.—It would be considerably less as the calorific value is practically double that of coal and we would get just as good efficiency.

President.—But that remains for the time being a possibility: after all you cannot turn to that just now?

Mr. Christensen.—No.

Mr. Kale.—Are you likely to get over the difficulties of communication by getting the coal by river?

Mr. Christensen.—I don't think so.

Mr. Kale.—Supposing you found the coal suitable, will the difficulty of bringing your coal be overcome so that you could get the requisite quantity?

Mr. Christensen.—It is a question of a railway connection between the North Western Railway, Peshawar line, with the Bannu narrow gauge line, but apart from the question of communications it has to be remembered that the mine is situated on the frontier and is worked by Pathan workmen with little supervision and is therefore very unreliable.

II. RAW MATERIALS.

President.—In answer to Question 19, you tell us that the royalty is 8 annas a ton and the other expenditure is Re. ·825 a ton. Do these figures relate to the limestone only or also to the clay?

Mr. Annesley.—The royalty is paid on the cement output.

President.—Eight annas on a ton of cement?

Mr. Annesley.—Yes, but I must qualify it. It is based on a 50,000 ton output.

President.—Do you pay the same sum every year whatever the output is?

Mr. Annesley.—It will vary until we have exported 50,000 tons.

President.—I can quite understand that the amount per ton will vary. What I mean is does your total remain the same from year to year? Supposing you turn out 30,000 tons in one year and 30,000 tons in another year, what will your total payment be?

Mr. Annesley.—We pay in proportion.

President.—Then it would be the same per ton. I am afraid you must tell us what the provisions of your concession are as regards the royalty. Suppose at the end of the year you turn out 30,000 tons, how is the amount you have got to pay calculated?

Mr. Annesley.—It is calculated on the basis of 8 annas royalty on a 50,000 ton unit, so if we turn out 30,000 tons we pay a higher royalty.

President.—I am not thinking of the royalty per ton. After all a transaction will take place and you will send a cheque for a certain amount. How do you get at the total amount that you have to pay? Is it something in the nature of a sliding scale or is it a fixed sum?

Mr. Annesley.—It will be a sliding scale I think.

President.—I cannot see how it can slide both ways. I can imagine a total figure so that the incidence per ton of output may vary or it may be fixed at so much per ton, then the sliding would be on the other side. Without looking at the actual document I am afraid it will be difficult to get at it.

Mr. Annesley.—We have been paying up till now the minimum royalty.

President.—Have you not got the actual figures with you? if not, perhaps you will let us hear about it.* Does it apply to all your raw materials?

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* Statement III, enclosure I.

Mr. Annesley.—It is on the manufactured ton.

President.—Do you get both your clay and the limestone under the same concession?

Mr. Annesley.—Yes.

President.—And the payment to be made is calculated on the output of cement?

Mr. Annesley.—Yes.

President.—You say in your answer to question 20, that the Company holds a 29 years lease. Is it a Government lease or is it from a private person?

Mr. Annesley.—Private.

President.—Have you the option of renewal at the end of that period?

Mr. Annesley.—Yes.

President.—Are any of the terms of renewal fixed or is it left to be settled?

Mr. Annesley.—The principal terms have been fixed according to the existing lease terms.

President.—Have you made any estimate of the total quantity available in the area?

Mr. Christensen.—It is an enormous quantity. We investigated that before the plant was put down.

President.—At any rate you have got supplies in the area far in excess of your requirements for 29 years?

Mr. Christensen.—Yes.

Mr. Kale. Where do you get your gypsum from?

Mr. Christensen.—From the Salt Range.

Mr. Kale.—Is it the same source of supply as you have for Bundi?

Mr. Christensen.—For Bundi we get only a portion of the gypsum from the Salt Range.

Mr. Kale.—What would be the distance from the works?

Mr. Christensen.—About 200 to 215 miles.

Mr. Kale.—The composition of your raw materials here in the Punjab naturally differs from that in Bundi because the limestone does not appear to have all the other elements which are required for the making of cement and therefore you have to add clay. Is it for that reason that you have adopted the wet process? Have you adopted the wet process because it is suitable to the material?

Mr. Christensen.—Yes. The limestone is practically pure and it is necessary to grind it very fine to get the clay and lime mixed before passing it on to the kiln.

Mr. Kale.—From the evidence that was given before us we have got the impression that the wet system is a more up-to-date system; is that a fact?

Mr. Christensen.—It depends on the local conditions. No two cement works are alike; they have to be designed according to the materials available and also according to the local conditions.

Mr. Kale.—There is nothing intrinsic in the dry or the wet process that is superior?

Mr. Christensen.—Nothing. Even to-day we can claim that with our raw materials we are able to make cement under the dry process which is as good as, if not better than, that made by the wet process.

Mr. Kale.—It all depends on the nature of the raw materials?

Mr. Christensen.—Yes.

Mr. Kale.—Do you consider that the distance of the quarry from the works is not dissimilar to the distance at Bundi?

Mr. Christensen.—It is even less.

Mr. Kale.—So that the freight on raw materials is not higher at Bundi?

Mr. Christensen.—We have different types of labour. Local wages of labour at Punjab Works are higher and it costs us more per mile to transport the material in Punjab.

President.—Is the labour worked by contract?

Mr. Christensen.—Yes.

Mr. Kale.—This Re. ·825 a ton in your answer to question 19 (2), (3) and (4), does that apply to the clay as well as to the limestone?

Mr. Christensen.—That is an average for the two. Re. ·825 a ton on the mixture of clay and stone as used in the process.

Mr. Kale.—That is what you pay on both kinds of material in the same proportion?

Mr. Christensen.—Yes. In the proportion as used for cement.

III. LABOUR.

President.—In answer to question 32 you say you have no imported factory labour, and then in answer to 34 you say "The Company first imported an experienced cement burner to train the local maistries." Are you employing as Burners solely the local people whom you have trained?

Mr. Christensen.—Yes. Some of the burners were lent to Bundi for a considerable time and after they were taken back to the Punjab works they were further trained under a European Burner and they are now able to carry on under the supervision of the engineer. The European Burner has now left the place and the three Indian burners are carrying on the job.

Mr. Kale.—How long were they under training at Bundi?

Mr. Christensen.—I believe it was three months: but before the transfer they had been working at Bundi for several years, and one of them had previously been working at Bundi as an assistant Burner and worked as such for several years there.

Mr. Kale.—I ask this question because we were told that the work of the Burner was one of the most difficult in the cement factories and required a lot of training.

Mr. Christensen.—That is so.

Mr. Kale.—Therefore, is it possible for you to train the ordinary man, say, in the course of one or two years?

Mr. Christensen.—When we say that the three Indian Burners are carrying on the job it should be understood that they are under constant supervision of the European officer who is an expert burner. He sets all the valves and gives them all the instructions and is called at any moment when there is any special trouble. Of course the burning of the kiln is not a difficult job; it is an easy matter, as long as everything runs smoothly but the moment there is any trouble the European comes in and the Indian burner's job is really to notice any trouble before it has gone too far.

Mr. Kale.—You mean before it has really spoilt the cement?

Mr. Christensen.—Yes.

Mr. Kale.—What is ordinarily the salary of an Indian Burner?

Mr. Christensen.—We have two Indian Burners at Lakheri who started on a pay from 8 annas to 10 annas a day and they are now getting Rs. 100 a month and provident fund and bonus for good quality and for quantity.

President.—That comes to about Rs. 4 a day.

Mr. Christensen.—It would be about Rs. 4 a day excluding the bonus and other allowances.

Mr. Kale.—In your answer to question 30, you say that you have got some difficulty with regard to labour on account of *Roza*. Do you mean *Ramzan?*

Mr. Annesley.—Yes.

Mr. Kale.—You have no difficulty in the agricultural season. It is agricultural labour?

Mr. Christensen.—Most of them are locally recruited in the district A few of the labourers are imported from the district of Jullundur.

Mr. Kale.—Is there no irregularity in the agricultural season?

Mr. Annesley.—We started only recently.

Mr. Christensen.—We have just been through the month of *Ramzan*. It was rather difficult to keep things going continuously.

Mr. Kale.—I ask this question because elsewhere we found that during the agricultural season the labour is very irregular. They go back to their fields. I wanted to know whether you had similar difficulties, but you have not been working sufficiently long.

Mr. Christensen.—The people who work for us for some time get promotion. In that way we encourage people to stop. In Bundi we have a system of attendance bonus. If a man is regular in his attendance for one full month, he gets two days' pay extra.

IV. POWER AND FUEL.

President.—Is the figure of coal used per ton of cement about the same as at Lakheri or is it different?

Mr. Christensen.—It is a little lower. As I stated before, we have been using the most up-to-date plant right from the beginning.

President.—Can you let us have the figure?

Mr. Christensen.—It is about 50 per cent. on the whole.

Mr. Ginwala.—What is this Makerwal coal that you are talking about? Is it a big colliery?

Mr. Annesley.—No, it is not a big colliery. It is situated on the hill side.

Mr. Ginwala.—Is it near the works?

Mr. Christensen.—It is on the other side of the Indus in independent territory. At certain seasons it is impossible to get the coal across the river Indus.

Mr. Ginwala.—Supposing there was no trouble about transportation, could you get enough coal for your purpose?

Mr. Christensen.—We could not use it entirely.

Mr. Ginwala.—What sort of coal is this?

Mr. Christensen.—It is a low grade coal. We are at present experimenting as to what quantity of this type of coal we shall be able to use.

Mr. Ginwala.—It does not make a very big difference if it is an inferior coal because it costs you Rs. 16 at the works, whereas Bengal coal costs somewhere between Rs. 21 and Rs. 27.

Mr. Christensen.—No.

President.—The six rupee coal from Bengal would be comparable to the Makerwal coal?

Mr. Christensen.—Yes.

Mr. Ginwala.—Is there any wood fuel available there?

Mr. Annesley.—None, I think.

Mr. Christensen.—Wood fuel is only used in very small quantity for lighting up.

V. MARKET.

President.—In your answer to question 52, you say, "These works were originally designed to supply the anticipated demands from the Punjab

Government for Irrigation and other works." What quantity have the Punjab Government taken during the last six months?

Mr. Annesley.—For the Irrigation project, that is the Sutlej Valley project, they have taken 5,000 tons. But of course that work has only just started. I have not got the indent yet for the coming season.

President.—I cannot find the reference just now, but there is some sentence in one of your answers which rather suggests that you were hoping to get big orders from the Punjab Government. I do not know where that is.

Mr. Annesley.—It requires a little bit of explanation I am afraid. As far back as 1911-12, just after Sir Louis Dane left the Punjab, a concession was granted giving the monopoly of the supply of cement to a company. That, of course, gave rise to considerable outcry and eventually the concession was quashed. At the end of the war, the Punjab Government made enquiries in regard to the best site for erecting a cement works of their own, having, no doubt, in mind the possibilities of canals and the big irrigation schemes which were coming on. They were, I think, to a certain extent misled by reports that cement could be manufactured at about Rs. 20 a ton. It could not be made commercially for that figure. We had been prospecting the Punjab for a number of years and were looking for a good cement works site. We eventually hit on the site at which we have erected our works. The Punjab Government expert subsequently selected the same site—and it is, I believe, the best in the Punjab—but when we came to negotiate with the Government owing to the increase in the cost of the works and the rise of prices generally we could not make cement at anything like the price originally anticipated by the Punjab Government. Of course they said "If you give cheap cement, we will be able to use it." In the case of the Sutlej Valley project we anticipated there would be a big demand for cement, but we were greatly surprised to hear at one time that they had made complete *bundobast* to use lime only, without a word to us, although we had a contract that the Punjab Government would take supply up to a limit of 20,000 tons at works cost in the first year and at cost *plus* a percentage basis afterwards. I have not got the contract here. However with the general cry for retrenchment, the use of cement in the Sutlej Valley project was actually turned down. We felt that having built them we had to keep the Punjab Works going to their full capacity and we came to the conclusion that we had better make a special contract for the Sutlej Valley Project, even at a very low rate which would leave us practically nothing. Profit for the works would depend a good deal on the selling of the rest of the output. It is very difficult to give you figures. Last season we supplied about 4,000 tons to the Sutlej Valley Project, and this season we expect that they will take considerably more.

President.—Of course that is all exceedingly important as it brings out one of the facts that the demand for cement is governed by the price. A big increase in the consumption of cement may be quite possible at a certain price, but not possible if the price goes a bit higher. Can you tell us a little more about the original contract with the Punjab Government? Have you sent us a copy of that contract?

Mr. Annesley.—I don't think that we sent you a copy.

Mr. Ginwala.—If we could get the same details as we got for the Bombay Development Department contract, it would be useful.

Mr. Annesley.—I put in the contract, which reads, *inter alia*, "The price to be paid to the Company for all cement supplied hereunder shall be as follows:—

(*a*) During first year of the operation of this Agreement Rupees Forty-two and annas eight per ton.

(*b*) For the remainder of the period of this Agreement a price not exceeding Rs. 50 per ton based upon the actual cost of manufacture to the Company during the Company's preceding financial year *plus* a percentage on the Block Capital of the Company (as hereafter defined) of 15 per cent. or such less percentage calculated with reference to the acutal cost of manufacture as may be arrived at in accordance with the following sliding scale :—

Sliding scale: For every Rs. 2 increase in the manufacturing cost over Rs. 30 per ton a reduction of 1 per cent. from the 15 per cent. on such block capital, *viz.* :—

			Per cent.
Up to and including Rs. 30			15
Over Rs. 30 and up to Rs. 32			14
32	,,	34	13
34	,,	36	12
36	,,	38	11
38	,,	40	10
40	,,	42	9

or such smaller percentage as when added to the manufacturing cost shall bring the price to be paid by Government up to the maximum of Rs. 50 hereinbefore mentioned." Then the definition of block capital is laid down pretty clearly. Then, " the cost of manufacture for the purpose of this agreement shall be deemed to include all expenditure and charges on revenue account including *inter alia* works supervision, repairs, maintenance, interest charges on debentures and loans, all royalties, etc., *plus* a fixed charge of Rs. 2 per ton for administration charges (administration charges to include Directors' and Auditors' fees, Managing Agents' remuneration, Bombay office rent and establishment, printing, stationery, postage, and telegrams) *plus* depreciation at the rates scheduled by the Income-tax Department as allowed for buildings, plant and machinery and otherwise."

Mr. Ginwala.—But this is no longer in operation?

Mr. Annesley.—Certainly it is. In the agreement it is stated " The Government " shall mean the Government of the Punjab and shall include the Irrigation Branch, Punjab Public Works Department; Roads and Buildings Branch, Punjab Public Works Department; the Director of Industries, Punjab; the North-Western Railway throughout its length; and the Military Works Services, Northern Command.

Mr. Ginwala.—How can the local Government bind the Government of India?

President.—Can you tell us what the terms of the subsequent agreement with the Government for the Sutlej Valley Project are?

Mr. Annesley.—As regards the total quantity, the Chief Engineer has the option of buying 30,000 to 36,000 tons over a period of three years. He has also the option to give notice before the 1st of May 1925 to increase the quantity to 45,000 tons but he must not exceed 15,000 tons in one year.

As regards the rate of delivery—delivery shall be at the rate of 1,000 to 1,200 tons monthly from the 1st August to 31st May in each year, until a minimum total of 10,000 tons or a maximum total of 12,000 tons as the

Chief Engineer may require have been delivered in each year. Twenty-one clear days' notice shall be given of the quantity required each month.

The price is Rs. 33 a ton f.o.r. works.

Mr. Ginwala.—How do you find these intricate methods of calculation work in actual practice?

Mr. Annesley. This Sutlej Valley Project agreement was the outcome of a visit which we paid to the Punjab Government last year. We had long discussions with all the Punjab Engineers as to the proportions of cement they could use, our argument being that they could use a weaker cement mixture and at the same time turn out a better job. They, of course, were not keen on this weak cement mixture.

Mr. Ginwala.—What do you think is the proportion of lime and cement?

Mr. Christensen.—It varies with different types of sand. It is impossible to give definite proportions. To my mind it would be safe to take one of cement and six of sand as available in the north of India. The Punjab Engineers have adopted a considerably richer proportion as they stated that they had no previous record of the leaner mixture being used.

Mr. Ginwala.—You are talking of the proportions in the mixture?

Mr. Christensen.—Yes.

Mr. Ginwala.—What is the comparative strength of lime and cement? We were told by one witness that for 11 bags of lime you could do with one bag of cement. On that basis what is your opinion as to the quantity of cement that should be used in proportion to lime?

Mr. Christensen.—A 1 to 6 mixture is as strong as a lime mortar.

President.—Do I understand that in your view the proportion of one of cement to six of sand is as good as the same quantity of lime?

Mr. Christensen.—It is as strong as one of lime to one of sand.

Mr. Ginwala.—Take house construction. At what price would cement be used in preference to lime by the small consumer? For that reason we want to know how much cement you would have to use as against how much of lime and what is the proportion?

Mr. Christensen.—It is very difficult to say, but it should be borne in mind that, when using cement, it is not fair just to compare cement and lime from the point of view of strength.

Mr. Ginwala.—What we want to know is to get an approximate idea of the point at which cement may begin to be used in place of lime. We are not going to pin you down to any opinion you may express.

Mr. Christensen.—It is impossible to give you any figure. Lime has certain advantage in some places whilst cement has the advantage in other places. For instance, take this building (Legislative Council, Simla), reinforced concrete has been used, and in this case the price of steel joists must have been compared with cement.

Mr. Ginwala.—Take the Fort in Bombay. You know what the soil is. Assume that there is a four-storeyed building according to the Bombay Corporation rules to be built on a site of 100'×50'. At what stage, would it pay a man to use cement instead of lime? Just confine your attention to that. It is an ordinary four-storeyed building.

Mr. Christensen.—It is impossible to say off-hand. It took us about 3 months to ascertain this for one particular job and convince the Punjab Engineers that cement was preferable.

Mr. Ginwala.—When an engineer starts building, he makes up his mind whether he is going to use lime or cement. He does not make any meticulous calculations. He only takes a general view of the thing.

Mr. Christensen.—He has got to make a detail and careful estimate and design based on lime and another estimate and design based on using cement to enable him to ascertain which is the better and cheaper.

Mr. Annesley.—In the case of the Sutlej Valley Project, the engineers calculated their cost of using lime per 100 cubic feet and compared it with the cost of 100 cubic feet of concrete of a mixture of cement, sand and surki. That was the whole basis of our negotiations.

Mr. Ginwala.—But you must give us what the price of cement was and what the price of lime was at that particular locality.

Mr. Annesley.—For cement it was Rs. 42.

Mr. Christensen.—The estimated cost of lime concrete is Rs. 45 per 100 cubic feet.

Mr. Ginwala.—I want the price of lime.

Mr. Christensen.—I believe it is Rs. 62 per 100 cubic feet for white lime and Rs. 45 per 100 cubic feet for Kankar lime.

Mr. Ginwala.—How much is 100 cubic feet in weight?

Mr. Christensen.—One cubic foot of lime weighs from 60 to 65 lbs.

Mr. Ginwala.—You have told us that 100 cubic feet of your cement mixture was cheaper than 100 cubic feet of lime. You have given the price of your cement as Rs. 41.

Mr. Reid.—Rs. 33 f.o.r. works *plus* railway freight of Rs. 8, and delivered at site it will be Rs. 42 to Rs. 43. The bags will be returned and utilized time after time which reduces the cost considerably.

Mr. Annesley.—The engineers' produced statement showed 1 part of cement, 4 of sand and 8 of ballast, and at 90 cubic feet per cent. cement, the *ex* works cost was Rs. 38 and 100 cubic feet lime cost Rs. 51-3-0.

Mr. Ginwala.—Instead of concrete brick they use stone concrete there.

Mr. Christensen.—The concrete consists of small stones, sand and cement or lime. When cement is used it is called cement concrete and if lime is used it is called lime concrete.

Mr. Ginwala.—We have got no stone to speak of in Burma: we call it brick concrete.

President.—I think you understand what Mr. Ginwala wants to get. Will you be able to tell the result of the discussion of the Sutlej project? We are not concerned with the details of the test, but apparently the Punjab Engineers arrived at a certain conclusion that at a certain price it was worth taking cement and using it in preference to lime. That is rather important.

Mr. Ginwala.—The Sutlej project is a type of work which may be common hereafter in the country, but that is a special class of work. But I had in mind a small work.

Mr. Annesley.—I suggest that you ask for full details of estimate and costs from the Chief Engineer of Irrigation, Punjab.

President.—We shall write to them and ask them to let us have a note on it.

Mr. Christensen.—The cement in this case is used exactly in the same way as lime is used. If the design is altered to suit the strength of cement, then it would be possible to pay more for the cement and to get the work done cheaper and stronger. It was the first time that the Punjab Engineers had been offered cement as a substitute for lime and they would not agree to such a mixture as we suggested.

Mr. Ginwala.—They wanted a 1 to 4 mixture?

Mr. Annesley.—They would not agree to the mixture we proposed which was 1 to 6, although we showed by tests that our mixture was better.

Mr. Ginwala.—It is difficult to compare the two, because the price of lime in that particular locality may be very low. Is there lime in the neighbourhood?

Mr. Annesley.—Yes.

Mr. Ginwala.—We shall write to the Punjab people about this. We may be able to get figures about this.

Mr. Ginwala.—We came across a case in which you were able to undersell the Katni people. Do these stations mentioned in answer to question 51 represent the whole of your market?

Mr. Reid.—These are the principal centres.

Mr. Ginwala.—You are most favourably situated for the whole of your market when compared with the other cement works?

Mr. Reid.—Yes.

Mr. Ginwala.—Except that there may be some importation from Karachi competing against you.

Mr. Reid.—It is a very high freight from Karachi.

Mr. Ginwala.—Have you tried to find out what the principal market might be in the Punjab, supposing there was sufficient propaganda carried on?

Mr. Annesley.—We are carrying it on now.

Mr. Ginwala.—At present you are selling a considerable proportion of your output to Government and public bodies. That does not reach the small consumer.

Mr. Annesley.—In the last six months we made 13,000 tons, of which 5,000 tons were supplied to the Sutlej Project, 4,000 to Government and the remaining 4,000 to bazaar.

Mr. Ginwala.—What I wanted to know was this. Have you got any idea of the possibility of a market there in the Punjab in the bazaar?

Mr. Annesley.—I can get you figures for any of these centres; we have agents in all the big cities.

Mr. Ginwala.—With reference to your answer to question 53 you can hardly export from these works to places like Iraq, East Africa, and Ceylon?

Mr. Annesley.—No.

Mr. Ginwala.—Have you tried to get any barrels made in the Punjab?

Mr. Annesley.—We have made an enquiry from one firm.

Mr. Ginwala.—You mean from Spedding & Co.? I understood that this Spedding & Co. were in the Punjab. The question of freight is a very important one on any empty barrels that you may get.

Mr. Christensen.—It would never pay to buy empty barrels and then send them to the works. We have to get the materials and they have to be made up at our works.

Mr. Ginwala.—Is there any possibility of barrels being manufactured in the Punjab?

Mr. Annesley.—Not for the present.

Mr. Ginwala.—It is a very serious thing that the industry has got to consider, whether it will be able to manufacture barrels or not.

Mr. Reid.—We have sent cement to East Africa and other countries packed in double gunny bags.

Mr. Ginwala.—But that doubles the cost of the gunny bags.

Mr. Reid.—But it does not come to anything like the cost of the barrels.

President.—Have you made any calculation as to the cost? In connection with the Bundi works have you made any estimate as to what it would cost to have barrels made to pack cement?

Mr. Annesley.—We have not yet had a chance of making barrels out here.

Mr. Ginwala.—In Burma there is a great prejudice against bags. There is a fairly big market and a growing market if you get people accustomed to the bags, or you can pack your cement in barrels.

Mr. Reid.—I agree, but consider this is a matter which should be investigated by the works that are close to ports in India.

President.—These Kathiawad concerns are most advantageously situated for purposes of transport.

Mr. Ginwala.—Are you situated near the Indus? Is the river navigable where your works are?

Mr. Reid.—No. It is a long way off.

Mr. Ginwala.—That makes it difficult for you to do anything in the way of export.

Mr. Kale.—How are you situated with regard to the demand for cement in the Sukkur Barrage works?

Mr. Annesley.—The railway rate from Wah to Sukkur is Rs. 14-14-0. I have not got the freight from Bundi to Sukkur, but I think the ordinary rate is about Rs. 23-8-0.

Mr. Ginwala.—But you have not got enough cement in the Punjab works to supply to Sukkur. You manufacture 36,000 tons; that will not leave you much.

Mr. Annesley.—We can supply Bundi cement to Sukkur.

Mr. Ginwala.—Have they settled the question whether they should use cement or lime?

Mr. Kale.—Have you considered the possibility of your supplying the Sukkur Barrage with your cement?

Mr. Annesley.—We have sent them our rates and we are carrying on negotiations. We have sent our engineers there twice.

Mr. Kale.—Have they finally settled to use cement?

Mr. Annesley.—One of our engineers said that he was not able to hold out any very great promise. The local lime was quite good enough.

Mr. Kale.—Until that question is settled you cannot say whether there is a market there for your cement?

Mr. Annesley.—No.

Mr. Kale.—But supposing there was a market and they have decided to use cement, do you think you will be able to compete with other cement works there?

Mr. Annesley.—Yes.

Mr. Ginwala.—But the Dwarka factory pay only Rs. 6 freight to Karachi. How much further up is this?

Mr. Annesley.—About 400 miles.

Mr. Ginwala.—That is a disadvantage in their case, because there is the cost of transhipment, labour and freight.

President.—One question that was running in my mind was this. You have told us in the next section that you have got in the Punjab a naturally protected market. Would it be possible to indicate roughly the points within which you have got an advantage over your competitors on the basis of freight? that is to say, in one direction Gwalior is your competitor, and when you go to Karachi, the Kathiawad factories. Would it be possible to indicate where the frontier between the jurisdictions runs, so to speak?

Mr. Reid.—We have that information worked out and shown on our office map.

President.—Would there be any objection to giving us that? The Punjab Company is rather a peculiar one in that it has got a sort of natural province of its own. Lahore, I take it, will be distinctly within your sphere. What about Delhi, is it nearer to Gwalior?

Mr. Annesley.—Nearer to Gwalior. The freight from Bundi to Delhi is Rs. 6-10-9 per ton, and the freight to Lahore is Rs. 15-12-0 per ton. The freight from Gwalior to Ambala is Rs. 9-3-0.

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President.—Down the Indus it is doubtful whether Sukkur is within the Punjab sphere.

Mr. Annesley.—The freight from the Punjab works to Ambala is Rs. 11-13: from Bundi to Ambala is Rs. 10-13, and from Gwalior to Ambala Rs. 9-3, and from Katni to Ambala it is Rs. 14-10.

Mr. Ginwala.—Katni has the advantage, or disadvantage it may be, of being equidistant from all places. Have you tried to apportion India amongst the cement companies into zones or spheres of influence?

Mr. Annesley.—We have not come to any working agreement: it has not come into being.

Mr. Ginwala.—Have you made any attempt to bring it about?

Mr. Annesley.—It will be a sort of monopoly.

Mr. Ginwala.—It is hardly a question of monopoly. Apart from that, is it possible for the companies or manufacturers so to arrange that they do not compete in the same markets at uncommercial rates?

Mr. Annesley.—It is a matter of mutual agreement; if we had got associations, as they have at Home............

Mr. Ginwala.—You have not got them here?

Mr. Annesley.—They do not exist in India at present.

Mr. Ginwala.—Would it be possible in India at present? Are there enough works situated in convenient parts of India to admit of that? There are a good lot of them in Central India and Rajputana but there are not enough at the extremities.

Mr. Annesley.—I do not think there would be any difficulty in allotting spheres to the works.

Mr. Ginwala.—Take Madras, for instance. Of course they are building one works at Shahabad, and if that is finished it may be possible for them to cater for South India. What I want to know is whether the manufacturers have tried to come to some arrangement by which this wasteful competition may be stopped.

Mr. Annesley.—No agreement has been arrived at. There was a discussion a long time ago as to whether it was feasible or not, but the works were not unanimous.

Mr. Ginwala.—If that is possible no question of protection arises. Supposing you got the price of the foreign cement *plus* the freight *plus* the duty, it is quite obvious that there is little or no question of protection on your present cost figures.

Mr. Reid.—Still the imported cement would come into the country.

Mr. Ginwala.—Looking at it from that point of view there is no case for protection. At present there is a duty of 15 per cent. The c.i.f. price *plus* duty comes to Rs. 59 at the ports. If you get that price at the ports and more at the places fed by the ports, there is no question of protection. It is in your own hands. It seems that because you have no organisation by which you can regulate the market you are crying for protection.

Mr. Reid.—There is still preference for the English cement.

Mr. Ginwala.—Why should cement be sold at Rs. 40 or Rs. 34 f.o.r. works by a company which cannot possibly compete with another company within 200 miles of it? It is not a thing for which anybody is responsible except the manufacturers themselves. That is no reason why they should come before Government and ask for protection so as to enable them to capture the market.

Mr. Reid.—The request for protection is put forward with a view to enable many people who have hitherto used English cement to use Indian Portland Cement.

Mr. Ginwala.—If you get a better price in the country. You get Rs. 40 whereas supposing the imported cement went to that market, it cannot be had at anything less than Rs. 70. Instead of your getting Rs. 70 you get Rs. 40. You can afford to sell at the port at Rs. 50. You are not getting a good price either at the ports or in the interior because there is no organisation among the cement works. I am just putting it to you as it strikes me. If you combine some people may call it illegal and others immoral, but it is a matter of business organization.

Mr. Reid.—I do not see how that would keep out foreign competition.

President.—Supposing cement is coming to Calcutta at Rs. 60 a ton and supposing you are Rs. 12 distant from Calcutta, you would have to sell at Rs. 48 a ton at the works in order to get Rs. 60 in Calcutta. Let us say that you are able to sell a little below the foreign cement, say, Rs. 43, 44 or 45—I don't think it will amount to more than that. Mr. Ginwala's point is that you could afford to sell at Rs. 43, 44 or 45 at the works so as to sell it at Calcutta at, say, Rs. 55, 56 or 57, provided you get up-country a price similarly regulated by the price of imported cement. That can be done in the up-country market by a combination amongst the producers in India. His point is that you are doing so badly just now because you are getting a good deal less than Rs. 44 in Bombay and cut-throat prices up-country.

Mr. Reid.—But you would still have foreign cement coming in.

Mr. Ginwala.—Take the Punjab. The freight from Karachi is Rs. 14 c.i.f. Karachi; the imported price is Rs. 59; *plus* 14 comes to Rs. 73: you do not get Rs. 73 in Lahore for your cement or anything like it. If you get Rs. 65 at Lahore then you can afford to sell at Bombay at Rs. 45 a ton. That you can do, I think. We are assuming that the market is not affected, that the market remains the same. That is the point we have got to consider. What struck me was whether it was really a case for protection or a case for better organization of the market. Take oil for instance, they have got particular assignments; that is not a combination.

Mr. Annesley.—That does not exist as regards cement.

Mr. Ginwala.—I ask you whether it is possible to come into some such sort of agreement; there is nothing illegal about it in my opinion.

Mr. Annesley.—But all have got to come in.

President.—Are you prepared to express any opinion?

Mr. Annesley.—I don't think that would result in complete exclusion of foreign cement.

President.—Surely that is not an end in itself; it is only a means to an end.

Mr. Annesley.—That is so.

Mr. Kale.—What Mr. Ginwala assumes is that you will be able to sell your cement at the ports at a price lower than that of foreign cement, provided you have got sufficiently large market up-country. Is that assumption correct? Will you have a large market in the interior where you will be able to sell your cement at a higher price in order to be able to sell at a lower price at the ports? That is the whole point. Unless you can sell cement at a lower price you cannot get a sufficient demand in the country. If you sell at a lower price in the interior you cannot sell at a higher price in the ports, because in that case you cannot compete with foreign cement. Do you think there is a sufficient demand up-country to counterbalance the disadvantage of selling at a lower price at the ports?

Mr. Annesley.—We will have to work up the interior market: that will take time.

Mr. Kale.—That will take time?

Mr. Annesley.—Yes.

Mr. Kale.—Even supposing you have an organization, will that be effective unless there is an increase in demand up-country where you can dictate your own price?

Mr. Annesley.—An organization such as Mr. Ginwala suggests will mean an extensive propaganda.

Mr. Kale.—Unless the demand is very large, how will you be able to make a profit in spite of organization?

Mr. Ginwala.—There is a certain market for cement which must exist: at a reasonable price they would use cement instead of lime. Supposing you keep your price just below the price of foreign cement, would not that help you to sell your cement at the ports at a lower price? No doubt if the prices are kept up the demand will go down. I don't want to mix up the two points. I was assuming that the demand remains more or less the same, in that case would it not be possible to get better results by better organization?

Mr. Annesley.—The question of combination was considered, but it was not possible to come to an agreement. Until the market is educated sufficiently to consume the full output of the works, it is not possible. It might possibly involve the closing of one works to let the other factories work up to their full capacity and thus reduce the cost.

Mr. Ginwala.—But that is what is done in other countries?

Mr. Annesley.—Yes. It may come to that eventually, but it is not possible at the present moment.

Mr. Kale.—You do not agree then that, provided there is this organization among the cement manufacturers, there would be no need for protection? Supposing you organize all the cement companies in India and distribut amongst yourselves the markets and are able to adjust yourselves to the situation, then you think there will be no need for protection? So long as you are not organized, so to speak, there is internal war of competition. But suppose you organize and make the necessary adjustments, then will protection no longer be necessary?

Mr. Annesley.—I don't think that is correct, because foreign cement would still continue to come into the ports unless you exclude it. The figure of import will be the same during the period that we educate the market, and during that period we will require assistance.

Mr. Kale.—Suppose you are carrying on educative propaganda for three years; after that you would not want any protection?

Mr. Annesley.—That is a question which can be considered after that period is over. Surely we are not asking for protection forever.

Mr. Kale.—Suppose you are given three years for your propaganda work and the internal organization of your industry. Then are you in a position to say that after that period that help will not be necessary?

Mr. Annesley.—The position will then have to be reconsidered.

Mr. Kale.—Can you give us any indication; can't you tell us what the position after all is likely to be?

Mr. Annesley.—It is extremely difficult to prophesy. You will have to educate the market and all that, and in the meantime thousands of tons of foreign cement will be put in the market to compete with us.

Mr. Kale.—In the matter of protection what we have to consider is whether the industry will, after a few years, be able to do without protection; there must be a reasonable prospect of that happening.

Mr. Annesley.—I think after three years it might be possible to abandon protection; on the other hand you might have to increase the amount.

President.—But it is absolutely vital to your case that you should be able to do without protection within a reasonable period.

Mr. Kale.—It is very important to establish the fact that ultimately you would be able to do without protection within a reasonable period. That is the whole point of the scheme of protection recommended by the Fiscal Commission, namely, that eventually the industry must be able to hold its own without protection.

Mr. Annesley.—I think we can answer that question in the affirmative.

President.—It is not obvious from your figures. If the up-country market is sufficiently developed then, so to speak, there is natural protection, but there again the old difficulty comes in, namely, will the market in the interior grow up and will it continue to exist on the basis of world prices? If it won't, then any amount of protection that you get will not help you.

VIII. CAPITAL ACCOUNT.

Then let us go on to Section VIII—Capital Account. In answer to question 78 (*c*) you give under the heading "Miscellaneous Assets" Rs. 11,34,136. Are they all concrete assets, so to speak, or do they include preliminary expenditure and so on? Is the whole of it what you might call fixed capital expenditure?

Mr. Annesley.—It is all fixed capital expenditure. Rs. 93,000 for tramways, Rs. 1,17,000 for the water works scheme, Rs. 6,15,000 for the electrical plant, Rs. 6,500 for roads and bridges, etc.

President.—That is sufficient for my information.

Mr. Ginwala.—"Rights and Concessions" are these what the promoters of the Company get?

Mr. Annesley.—Yes, purchase rights.

Mr. Ginwala.—These rights are rights to a quarry?

Mr. Annesley.—Yes.

Mr. Ginwala.—Were they paid for in shares or cash?

Mr. Annesley.—Partly in shares I think. The details are shown in the balance sheet.

Mr. Ginwala.—With regard to your answer to question 81 "Estimated present-day total cost of new factory, Rs. 50 lakhs," is that the block value or is it merely plant and machinery?

Mr. Christensen.—That is the estimated total value.

Mr. Ginwala.—That is to say, you reduce it in the proportion of 60 to 50?

Mr. Christensen.—That is a very rough estimate.

Mr. Ginwala.—We had to apply this method in the case of the steel industry and there we had to follow some sort of rough-and-ready method and we took the present-day composite price of steel in the various years and we reduced the price of machinery in that proposition. Do you think that is a rough-and-ready way of dealing with your plant and machinery? Of course, in your case we have to take the European price.

Mr. Christensen.—In that case I think it would be less according to our figure.

Mr. Ginwala.—Do you object to that as a method? I am not asking you about the figures.

Mr. Christensen.—We think it is fairly correct as far as the machinery is concerned.

Mr. Kale.—I am not able to understand what the "Rights and Concessions" mentioned in answer 78 are and how their value has been estimated at Rs. 4,20,000? You are paying royalty for the raw materials that you are extracting and using. Apart from that, what are these rights and concessions? Does it include the value of land, for instance? Or is it the price for prospecting or pioneering that is paid?

Mr. Annesley.—I think that figure includes the value of the paid-up shares, value of the land, and I think it also includes the cost of obtaining the concession.

Mr. Kale.—It seems to me rather a high figure, that is why I wanted to know what the amount was paid for.

Mr. Annesley.—We have got 5,000 preference shares and 30,000 ordinary shares fully paid as part consideration; that was the remuneration for floating the Company. Then I think there was a clause in the agreement providing that we would get 10 per cent. of any capital raised.

Mr. Ginwala.—Is it 10 per cent. commission?

Mr. Annesley.—It is paid in fully paid-up shares. That accounts for Rs. 35,00,000.

Mr. Kale.—The bulk of it represents the price that had to be paid for the work of organization and floating the Company?

Mr. Annesley.—Yes, and including the cost of land.

सत्यमेव जयते

Witness No. 8.

THE KATNI CEMENT AND INDUSTRIAL COMPANY, LIMITED.

(Agents.—Messrs. C. Macdonald & Co.).

A.— WRITTEN.

Statement I.—Replies to questionnaire (1) (a) received from the Katni Cement and Industrial Company, Limited, under cover of letter, dated the 12th July 1924, from Messrs. Macdonald & Co., Managing Agents.

With further reference to your letter No. 398 of 21st May and wire of the 9th instant, we have now the honour to enclose herewith our replies to the questionnaire regarding protection to the cement industry. We regret it will be impossible for us to send a representative to Simla as our Manager leaves for England on the 15th current for reasons of health.

We trust, however, that the oral evidence of the representatives of the other cement Companies will be sufficient for your purpose.

REPLIES TO QUESTIONNAIRE.

INTRODUCTORY.

1. Public Limited Company Floated 1912.

2. With the exception of about 1/12 of the total all the capital is invested by Indians.

All the Directors are Indians.

The superior management Partners of the firm of Managing Agents are all Indians.

3. We manufacture cement and firebricks.

4. Manufacture of cement commenced in January 1915.

5. Cement 60,000 tons per annum, firebricks from 9,000 to 12,000 tons.

6. The actual output of cement per year has been:—

	Tons.	cwt.
1915	13,000	0
1916	31,264	0
1917	40,508	0
1918	36,730	0
1919	34,614	0
1920	33,761	0
1921	42,977	10
1922	43,820	0
1923	53,275	15
Ending March 1924	13,194	13
	3,43,144	18

7. Factory is situated at Katni, Central Provinces, which is considered an advantageous situation being central and a junction of three important Railways, E. I. Railway, G. I. P. Railway and B. N. Railway. Labour is plentiful except during harvest time. We consider the most important factors in selecting the site of a Cement Factory are the supply of raw material, fuel, water, labour and the vicinity of markets.

8. We manufacture only one quality of cement, *viz.*, Katni "Castle" Brand Portland Cement which is well known throughout India.

9. Portland cement constitutes the bulk of our manufacture. We manufacture to the British Standard Specification. A new specification for India is being prepared by the Institute of Engineers India.

10. Our Cement is equal in quality and appearance to imported cement. It does not command the same price in competitive markets as imported cement on account of prejudice on the part of some Indian buyers.

11. The raw materials are composed of limestone and clay (the latter only a small proportion).

12. The quantity of raw material required for our present output is about 50,000 tons annually. For the full capacity of the plant about 100,000 tons.

13. About 1½ tons of raw material is required for the production of one ton of cement. A. B. and C. answered above.

14. Same proportion as required for cement.

15. One ton of clinker will produce one ton of finished cement.

16. The main supplies of raw material are obtained from the quarries on the factory site and a small portion railed from another quarry about 20 miles distant.

17. The raw material is quarried by hand and conveyed from the quarry to the factory a few hundred yards in small tip wagons.

18. Royalty on raw material paid to Government amounts to annas 3 per ton.

19. The cost of raw material delivered at the factory is as follows:—

(1) Royalty as shown above.

(2) Labour and Limestone 1921 Rs. 1 14 6 per ton.

Do. 1922 Rs. 1 15 0 per ton.

Do. 1923 Rs. 2 1 1 per ton.

Do. 1924 Rs. 1 12 9 per ton.

(3) The above includes freight on small portion bought from outside.

(4) Miscellaneous charges Rs. 0-4-0 per ton.

20. Copy of lease attached.

21. We have found the supply of raw material more or less constant and without any deterioration.

23. Our principal raw material will give a supply for 80 to 100 years. As years go on the cost of excavation has a tendency to increase because it has to be won from a greater depth.

24. No.

25. No difficulties have been experienced on obtaining leases or concessions.

26. We do not import any raw materials.

27. No.

III. LABOUR.

A.—*Quarry Labour.*

28. 850 Labourers were employed in 1923 in extracting limestone from the quarries here; 80 were employed in excavating clay specially for slurry.

Year.	Total wages bill.	Average wages, Men.	Average wages, Women.
	Rs.	Annas per day.	Annas per day.
1916	9,315	5	4
1917	20,962	5	4
1918	76,428	5	4
1919	50,611	5	4
1920	40,338	8	6
1921	73,887	8	6
1922	40,556	8	6
1923	15,672	8	6

29. Up till now we have not experienced any great difficulty in obtaining labour for our quarries, but when this factory is again working full, along with the other two cement factories in the neighbourhood, and also with the various local lime factories labour will be quite insufficient. During the harvest months, March-April and November, labour is very scarce as is gets employment in the fields.

30. The greater part of the labour comes from Rewa, a Native State, about fifty miles away. They can hardly be said to be imported; they come here and apply for work in the usual way. They are not recruited.

When trade improves it is almost certain that labour will have to be imported from other districts as the labour in this district is agricultural and not industrial.

The new Mines Act will also affect the situation as the restrictions with regard to the employment of women and children will require a larger number of men to be employed and therefore a greater number will need to be imported. We do not anticipate any great trouble in importing labour but it will mean increased cost.

31. The greater part of this labour is used for carrying purposes and requires no special training. A smaller number are required for the breaking away of the stone, sometimes by drilling and blasting and sometimes by bars and wedges. The latter number take a fair amount of training; their average intelligence is not high. Shot firers are trained from the most intelligent.

32. The foreign supervising staff consist of a Manager, who is an Engineer and Cement Expert, an Assistant Manager, Chief Engineer, Chemist, and Burner. The supervision of the processes in each shift is done by Indians, *i.e.*, Power House, Factory, Kiln and Laboratory.

33. Question No. 32 gives the number of imported persons required for running at full capacity.

34. European Burners have been replaced by Indians on shift. Eventually imported labour will probably consist of Manager, Engineer and Chemist.

In all departments Indian workmen are trained to suit our requirements. Indian apprentices are trained in the Repair Shop, Kiln, Electrical Shop and Laboratory.

35. Rates paid to imported labour are about 50 per cent. higher than in Britain.

37. The total wages paid for Indian factory labour was:—

	Rs.
1915	96,200
1916	82,850
1917	93,560
1918	1,20,204
1920	1,70,307
1921	2,01,735
1922	1,73,736
1923	2,63,646

The average wages for the principal classes of labour were:—

1916. Boiler house coolies, As. 7 per day. Power house greaser, As. 10 per day. Power house attendants, Re. 1-6 per day. Power house fitters, Re. 1-6 per day. Engineers, Rs. 93 per month.

Factory coolies, As. 6 per day. Factory fitters, As. 10 per day. Repair shop fitters, Rs. 2 per day. Masons, Re. 1 per day.

1917. Boiler house coolies, As. 7 per day. Power house greaser, As. 10 per day. Power house attendants, Rs. 2 per day. Power house fitters, Re. 1-3 per day. Engineers, Rs. 100 per month.

Repair shop fitters, Re. 1-3 per day. Masons, Re. 1 per day. Electricians, Re. 1-10 per day.

Factory coolies, As. 6 per day. Factory fitters, Re. 1-4 per day.

1918. Boiler house coolies, As. 7 per day. Power house greaser, As. 11-3 per day. Power house attendants, Re. 1-8 per day. Power House Fitters, Re. 1-3 per day. Factory coolies, As. 6 per day. Factory Fitters, Re. 1-4-6 per day. Repair shop fitters, Re. 1-3 per day. Masons, Re. 1-1 per day. Engineers, Rs. 140 per month. Electricians, Rs. 2 per day.

1919. Boiler house coolies, As. 7 per day. Power house greasers, As. 11-3 per day. Power house attendants, Re. 1-10 per day. Power house fitters, Re. 1-3 per day. Factory coolies, As. 6 per day. Factory Fitters, Re. 1-2 per day. Repair shop fitters, Re. 1-6 per day. Masons, Re. 1-3 per day. Engineers, Rs. 200 per month. Electricians, Rs. 2 per day.

1920. Boiler house coolies, As. 10-9 per day. Power house greaser, As. 11 per day. Power house attendants, Re. 1-4 per day. Power house fitters, Re. 1-6-9 per day. Factory coolies, As. 9-3 per day. Factory fitters, Re. 1-1-3 per day. Repair shop fitters, Re. 1-10-9 per day. Masons, Re. 1-6-9 per day.

In September 1920 a general increase of 35 per cent. was given to all those earning less than Rs. 100 per month, and an increase of 10 per cent. to all others.

At that time an 8 hours day was introduced without reduction of pay. Previously there was a 12 hour shift. This represented an increase of 50 per cent. at that time.

1921. Boiler house coolies, As. 10-9 per day. Power house greaser, As. 11-6 per day. Power house attendants, Re. 1-6-6 per day. Power house fitters, Re. 1-3-3 per day. Factory coolies, As. 9-3 per day. Factory fitters, Re. 1-5 per day. Repair shop fitters, Re. 1-9 per day. Masons, Re. 1-6-9 per day.

Electricians, Rs. 2 per day. Foremen, Rs. 135 per month. Engineers, Rs. 225 per month.

1922. Boiler house coolies, As. 10-9 per day. Power house greasers, As. 10-3 per day. Power house attendants, Re. 1-4 per day. Power house fitters, Re. 1-12 per day. Factory coolies, As. 9-3 per day. Factory fitters, Re. 1-12 per day. Repair shop fitters, Re. 1-13 per day. Masons, Re. 1-9-3 per day. Electricians, Rs. 3-8 per day. Foremen, Rs. 175 per month. Engineers, Rs. 175 per month.

1923. Boiler house coolies, As. 10-9 per day. Power house greaser, As. 9-3 per day. Power house attendants, Re. 1-5-9 per day. Power house fitters, Re. 1-12 per day. Factory coolies, As. 9-3 per day. Factory fitters, Re. 1-12 per day. Repair shop fitters, Rs. 2-1 per day. Masons, Re. 1-12 per day. Electricians, Rs. 3-8 per day. Foremen, Rs. 200 per month. Engineers, Rs. 210 per month.

38. The Indian labour force is sufficient.

Coolies and a few of the skilled men, like fitters, are drawn from the vicinity, but the majority of the skilled men is drawn from the larger towns like Bombay and Calcutta; it is of a floating character.

39. Generally the Indian workman improves with training, but it is very difficult to get them to adopt any new idea or method. Time and patience often achieve this.

The skill of the skilled classes of workmen is fair compared with that of men in western countries; but the time taken to do a particular piece of work compares very unfavourably with that taken by similar workmen in Europe.

In processes not requiring mechanical skill and dexterity, *e.g.*, Office and Laboratory, his efficiency compares very favourably with those similarly employed in western countries.

40. Over 65 pukka built separate quarters have been erected to house skilled workers and more than 200 quarters for the unskilled portion of the labour; these are all rent free. Many of the labourers have small agricultural holdings in surrounding villages and prefer to go to their homes there daily.

A supply of water is laid on by a series of stand pipes from a central reservoir. In addition two wells have been sunk and water also found, fit for drinking, and giving an excellent supply in addition.

All employees are granted seven single holidays in the year with pay.

A full time Doctor whose services are free to employees is kept, also a well equipped dispensary, both as regards medicines and instruments.

Half-pay is given to employees when off sick and full pay if they get injured on duty.

IV. POWER (INCLUDING FUEL).

41. Electric power is used.

42. Electric power is generated at 500 volts. The current is alternating 50 cycles, 3 phase. Direct coupled reaction and impulse type turbines are used. These run at 3,000 r.p.m. steam is supplied to these turbines at 190 lbs. per square inch pressure from Babcock and Wilcox Boilers. A high degree of superheat is employed. The cost per unit may be taken at ·75 annas; this does not include interest on capital or depreciation. The cost compares favourably with stations similarly situated, but we should expect this to be cheaper in stations in the coalfields. The cost is about the same as in large towns in Britain and cheaper than in China.

43. Coal is the fuel used.

44. ·63 tons of coal required per ton cement; this includes power production and burning.

45. Boiler coal is brought 100 miles, costs Rs. 8-10 per ton free on rail and Rs. 2-6-3 per ton for transport.

Kiln coal is brought 450 miles costs Rs. 8-14 per ton free on rail and Rs. 8-8 per ton for transport.

46. We do not own or control our own sources of coal.

V. MARKET.

48. Indian cement manufactured was—

1921	1,28,827
1922	1,48,824
1923	2,17,305

49. About 2,50,000.

51. Our principal markets are the towns on the east side of India from Calcutta in the south to Delhi in the north. The distances it will be seen vary considerably.

52. We can compete more easily with foreign cement in the northern towns.

53. We do not consider the export of cement from India to foreign countries probable.

54. The cement manufactured by us is purchased by (*a*) Government, (*b*) Railways and (*c*) Public bodies such as Municipalities and Port Trusts and amounts to the following:—

THE KATNI CEMENT AND INDUSTRIAL COMPANY LIMITED.

Statement of Cement supplied to Government and Public Bodies from 1915 to 1924.

Year.	P. W. D.	Municipality and B. I. Trust.	Railways.	Indian Munition Board, &c.	Port Trust.	Prices received during
	Bags.	Bags.	Bags.	Bags.	Bags.	
1915	9,735	8,374	3,693	522	600	From Rs. 45 to Rs. 60 per ton.
1916	18,566	45,628	5,106	5,146	6,676	Same as above.
1917	40,790	16,375	15,907	34,098	9,397	From Rs. 42-8 to Rs. 75 per ton.
1918	6,766	2,173	1,542	316,299	3,451	Same as above.
1919	7,587	32	1,018	409,398	*Nil.*	From Rs. 55 to Rs. 75 per ton.
1920	105,689	160	59,488	160	*Nil.*	Same as above.
1921	60,311	482	23,555	2,535	*Nil.*	From Rs. 75 to Rs. 85 per ton.
1922	54,823	30,530	2,697	915	*Nil.*	From Rs. 60 to Rs 80 per ton.
1923	218,882	40,142	18,698	1,026	*Nil.*	From Rs. 55 to Rs. 65 per ton.
1924	104,305	41,775	5,000	100	*Nil.*	From Rs. 40 to Rs. 60 per ton.

The above figures do not include the quantity sold by our agents to the above bodies.

VI. Foreign Competition.

55. The foreign countries from which competition in India is keenest are England and Germany.

56. Only one kind of cement affects us, *i.e.*, Portland cement which is principal cement imported.

57. We only manufacture Portland cement.

(*i*) The price at which imported cement entered the country and was sold during (*a*) 1912, Rs. 45, 1913, Rs. 48 and 1914, Rs. 60 per ton, (*b*) during 1917 to 1918, Rs. 125 and Rs. 225 per ton and (*c*) 1921-22 varied considerably 1922-23, Rs. 80 per ton, 1923-24, Rs. 60 per ton.

58. The information is obtained from the actual shippers.

61. Foreign competition is keenest at the ports.

63. Freight from England to Bombay is so far as we can ascertain 17/6 per ton @ 1/4=Rs. 13-2 while the freight from Katni to Bombay is Rs. 13-8. We believe, however, that in many cases specially low freight is offered from England the exact amount of which cannot be ascertained. We would therefore suggest that some arrangement be made with the Railway Companies in the form of a bounty to enable them to carry cement at a specially low rate which would benefit the Cement companies and the consumers.

65. We have no evidence of Continental cement having been re-exported from the United Kingdom.

66. As compared with foreign manufacturer the Indian manufacturer is at a disadvantage on account of the points stated in the questionnaire with the exception perhaps of items (*d*), (*h*) and (*i*).

67. Most of the disadvantages are permanent but (*c*) may not be.

68. The cement industry is at a disadvantage on account of the distance from the source of fuel and the high railway freights on finished goods.

69. This is really a question that is better able to be answered by the Agents, but personally we think it is sufficiently large to ensure economical working in this country.

The tendency of present day practice in the East is to put up a single kiln plant of 150—200 tons per day output.

70. The manufacture of cement requires the use of heavy and expensive machinery. We should not call it elaborate in the sense that spinning or printing machinery is elaborate.

71. Of a capital of Rs. 30,00,000, Rs. 27,19,000 has been expended on machinery.

72. The boiler equipment consists of four Babcock and Wilcox Boilers each of 98 square feet grate area and 3,240 square feet of heating surface. They are equipped with mechanical stokers and superheaters each of 880 square feet surface. The stokers are driven by an electric motor. Three of the boilers have been in use since 1914 and the fourth since June 1921.

Three Weirs pumps supply the boilers with water from a softener.

The softener and two of the pumps have been in use since 1914, and the other pump since 1921.

In 1914 a 240 tube Green's economiser was put to work and in 1921 a further 120 tubes put in commission.

Natural draft is provided by a self supporting steel chimney 180 feet high

The power house is equipped with two Brown Boveri Reaction turbines 650 K. W., direct coupled to Siemens generator. 3 Phase A. C. is generated and supplied to all power motors. The voltage is 500 volts. The speed of the generators is 3000 r.p.m. These have been running since 1915.

One 1500 K. W. Metropolitan Vickers Impulse Turbine was installed in 1921 and is used as a stand by to the two small 650 sets.

When the whole plant is running the two 650 sets are run in parallel.

Each set is provided with a jet condenser and a water and air extraction pump. The Brown Boveri sets have air pumps of Edwards or reciprocating type, and the Metropolitan Vickers set an air pump of the Leblanc or rotary type.

All turbines are supplied with stem at 190 lbs. per square inch pressure and 600 F. superheat temperature.

All generators are ventilated by fans on each end of the rotor shaft these draw air through air filters of the dry type.

Cooling water for condensing and manufacturing purposes is drawn from a cooling pond and the make up is drawn from the Simrar river about ½ mile away, the water being pumped up electrically.

In the Raw Mill the stone is crushed either by a Smidth's crusher or by two 30 × 12 Hadfield's Breakers; the former installed in 1914, one of the latter in 1921 and the other in 1923. The stone is taken away from each crusher by a 60 feet centres elevator by the respective makers. These latter discharge into hoppers and then to kominor No. 50 made by F. L. Smidth & Co. Of these kominors two were installed in 1923 and one in 1921. The original 1914 one was worn out by 1923.

In the kominor, clay is supplied by a two throw pump and a patent measuring device, all supplied by F. L. Smidth in 1914.

The slurry is classified by passing through a Trix separator, both made by F. L. Smith. One installed 1914 and one in 1921. Slurry is then conveyed to two 17·5 Wet Tube Mills, supplied by F. L. Smidth, one in 1914 and one in 1921.

From the Tube Mill it is conveyed to mixing tanks the stirring gear of which was made by F. L. Smidth in 1914. Thence it is elevated to the main storage tanks and pumped to the measuring device at the top of the Rotary Kilns. There are two Rotary Kilns 150 feet long with enlarged zones one installed in 1914 and one in 1921. Each has a cold air fan, and a double cooler and they discharge into a shaking conveyor and thence by an elevator to trolly and a long platform to the clinker storage. All above machinery supplied by F. L. Smidth.

Two Coal Mills are installed, one by F. L. Smidth in 1914 consists of a roll breaker, dryer, kominor, II., and No. 16. Tube Mill with the necessary elevators and conveyors. The other installed in 1923 consists of a roll crusher, dryer, magnetic separator, 42″ Fuller Lehigh Mill and the necessary elevators and conveyors.

Coal is supplied to the kilns by friction measuring screws, which deliver into a blast pipe supplied with air from a high pressure fan, all of F. L. Smidth manufacture.

The Cement Mill is equipped with 2 No. 42 Cement Kominors and 2-17·5 Tube Mills together with 3 elevators Screw Conveyors. 2 14″ Belt Conveyors take the cement to the bins. One 42 Kominor was installed in 1921, one 17·5 Tube Mill in 1918 and the rest of the machinery in 1914. It is all of F. L. Smidth make.

In 1923 two Bate's Baggers together with a screw conveyor and a drag line conveyor were installed for packing cement to avoid dust.

They were made by the Bates Manufacturing Company, United States of America. All large machines in the factory are driven by Induction Motors of 125—200 B. H. P., small machines are group driven by motors. All motors are made by Siemens Bros. about 50 have been in use since 1914 and 18 since 1921.

73. We consider our plant and equipment both upto date and efficient.

74. We are not aware that any startling improvements have been made in processes of manufacture. As for plant, the use of compound mills instead of kominors and Tube Mills has passed the experimental stage. The use of Synchronous Motors for driving large machines and at the same time improv-

ing the power factory has been rendered successful by the improvements in magnetic clutches.

75. No new process of manufacture has been adopted here since 1916. In 1921 the original plant was duplicated and in 1923 a new coal plant added. In 1923 one of the Raw Mill Kominors that had worn out was replaced and that year a spare Crusher and Kominor were installed. The last part of the last para. does not arise.

76. (*a*) We do not contemplate any important replacement of existing plant; only the usual repairs and renewals incident to this type of machinery and these are heavy.

76. (*b*) No extension of the plant is proposed so far as we know.

77. All elevators and conveyors, pulleys, shafts and bearings, hoppers, elevators were made in India for the duplication. All renewals in brass, wrought iron or cast iron are made in India. Up to the present all cast steel spares, plates, gears, etc., must be imported. One or two steel castings recently got from Calcutta have been very satisfactory.

78. Leases and Concessions—

	Rs.	A.	P.
Lands	6,975	11	0
Buildings	11,70,715	15	9
Plant and Machinery	14,46,992	12	4
Other miscellaneous assets	3,47,912	4	11

79. The figures given in answer to Question 78 represent the value after depreciation has been written off. The total amount written off for depreciation.

Machinery, Rs. 13,35,000-0-0 }
Buildings, Rs. 4,41,134-5-7 } Rs. 17,76,134-5-7.

80. Sums set aside for depreciation are greater than the sums which ought to have been set aside.

Amount set aside	Due at 10 per cent.
Rs. 13,35,000-0-0 -48 per cent. . .	Rs. 2,78,200 0 0

82.

Year.	Amount in sterling.			Amount in Rupees.			Exchange.
	£	*s.*	*d.*	Rs.	A.	P.	
1917 . .	5,352	15	10	78,997	9	4	From 1/4 $\frac{1}{8}$ to 1/4 $\frac{31}{32}$.
1918 . .	8,361	17	7	1,15,513	5	6	„ 1/4 $\frac{31}{32}$ „ 1/6 $\frac{1}{16}$.
1919 . .	19,725	7	4	2,44,202	5	11	„ 1/5 $\frac{31}{32}$ „ 1/11 $\frac{15}{16}$.
1920 . .	57,519	6	8	5,12,349	10	9	„ 1/5 $\frac{31}{32}$ „ 2/5.
1921 . .	28,310	13	10	3,79,278	8	6	„ 1/3 $\frac{9}{16}$ „ 1/10 $\frac{8}{16}$.
1922 . .	11,935	10	1	1,83,008	7	3	„ 1/3 $\frac{1}{16}$ „ 1/4 $\frac{3}{16}$.
1923 . .	8,724	12	2	1,29,342	3	11	„ 1/3 $\frac{15}{16}$ „ 1/5.
1924 . .	144	4	8	2,058	15	0	„ 1/4 $\frac{13}{16}$.
	Amount in Dollars.						
	$						
1922 .	33276·91			1,21,384	4	6	367 to 320 Rupees per 100 Dollars.
1923 . .	2194·15			7,175	11	6	
1924 . .	839·29			3,021	7	3	

83.

		Preference.	Ordinary.	Deferred.
Authorised . .	Rs. 30,00,000	Rs. 15,00,000	Rs. 14,37,600	Rs. 62,400
Subscribed and paid-up . .	Rs. 29,92,130	Rs. 14,95,530	Rs. 14,34,200	Rs. 62,400

84. Rate of interest on Preference is 7 per cent. per annum. They are entitled to cumulative Dividends. They were first entitled to rank for dividends after 12 months from date of registration, *i.e.*, 13th August, 1913. No dividends are in arrears.

85. Deferred Shares participate in the profits to the extent of 50 per cent. of the amount to be divided between Ordinary and Deferred after paying 8 per cent. dividends to Ordinary and 25 per cent. to Deferred.

86. The amount of the paid-up share capital is as under:—

(A)

Year.	Preference.	Ordinary.	Deferred.
	Rs.	Rs.	Rs.
1914. . .	4,94,300	14,14,800	56,080
1915. . .	4,99,900	14,34,100	62,400
1916. . .	4,99,900	14,34,100	62,400
1917. . .	5,00,000	14,34,200	62,400
1918. . .	5,00,000	14,34,200	62,400
1919. . .	5,00,000 *1,00,000	14,34,200	62,400
1920. . . 1921. . .	5,00,000 *3,75,610	14,34,200	62,400
1922. . .	5,00,000 *3,99,070	14,34,200	62,400
1923. . .	5,00,000 *9,88,390	14,34,200	62,400
1924. . .	5,00,000 *9,95,530	14,34,200	62,400

* Capital raised since.

(B)

Year.	1st Preference.			2nd Preference.			Ordinary.	Deferred.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	Rs.	A.	P.
1914	*Nil.*			*Nil.*			*Nil.*	*Nil.*		
1915	42,019	2	3	,,			,,	,,		
1916	69,989	8	0	,,			1,77,407	73,104	0	0
1917	35,000	0	0	,,			3,95,340	2,95,932	0	0
1918	35,000	0	0	,,			2,15,640	1,16,232	0	0
1919	35,000	0	0	,,			3,87,234	2,88,096	4	0
1920 . . . 1921 . . .	43,750	0	0	20,379	3	8	4,30,260	3,31,118	2	0
1922	35,000	0	0	28,000	0	0	4,58,944	3,59,807	5	0
1923	35,000	0	0	38,471	3	9	2,15,130	1,15,992	8	0

(C) Percentage on the paid-up share capital of the each class is as under:—

—	1st Preference.	2nd Preference.	Ordinary.	Deferred.
	Per cent.	Per cent.	Per cent.	Per cent.
1914 . . .	..	..	..	..
1915 . . .	7	..	..	..
1916 . . .	7	..	12	117½
1917 . . .	7	..	27½	474¼
1918 . . .	7	..	15	186¼
1919 . . .	7	..	27	461¾
1920—1921 . .	7	7	30	530½
1922 . . .	7	7	32	576½
1923 . . .	7	7	15	185¾

87. Average rate of dividend on the Ordinary Shares for the full period is 158½ per cent.*

88. The amount of Debenture Loans is Rs. 7,00,000.

They were issued on 1st May, 1920, Rs. 2,00,000.

They were issued on 15th June, 1920, Rs. 5,00,000.

Rate of interest 6½ per cent.

Repayable on 1st July, 1926.

No Debenture sinking fund has been established.

89. The amount of reserved fund is Rs. 12,00,000 accumulated from surplus profits.

(A) *Works Costs.*

91. Statement showing the total expenditure incurred on the production of cement.

	1st year of production.	1921—22	1922—23	1923—24
1. Raw materials .	Only 13,000 tons manufactured in this year their cost is no criterion with such a low production.	2,49,049 10 7	3,58,854 9 10	2,52,703 5 11
2. Factory labour .		51,776 5 6	58,300 8 0	54,150 10 7
3. Power and Fuel .		8,68,824 12 11	9,01,695 6 10	6,51,825 13 0
4. Ordinary current repairs and maintenance of Buildings, Plant and Machinery.		91,278 0 1	1,25,010 11 8	2,24,967 3 9
5. General services supervision and local office charges.		1,52,067 12 7	2,41,069 6 7	1,63,144 7 5
6. Miscellaneous, i.e., Rent and Royalty, etc.		4,038 4 0	7,560 11 11	14,571 7 3
		14,20,034 13 8	16,92,491 6 10	13,61,362 15 11
		Tons. Cwts.	Tons. Cwts.	Tons. Cwts.
Total production of cement for the year.		47192 5	47345 0	50301 13

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* Corrected to 15·85 per cent.—see oral evidence.

(B) *Works Costs.*

Statement showing the works cost per ton of cement.

	1st year of Production.	1921—22	1922—23	1923—24
(1) Materials . .		5 4 5	7 9 3	5 0 0
(2) Factory labour .		1 1 6	1 4 0	1 1 0
(3) Power and Fuel .		18 6 6	19 0 0	13 0 0
(4) Ordinary current repairs and maintenance of Buildings and Machinery.		1 15 11	2 10 6	4 7 0
(5) General services, etc.		3 3 4	5 1 0	3 4 0
(6) Miscellaneous, etc. .		0 1 4	2 6 0	0 4 0
		30 1 0	37 14 9	27 0 0

Over Head Charges.

	Rs.	A.	P.
1920-21	2,79,877	3	1
1921-22	2,96,847	10	5
1922-23	2,24,029	10	8
1923-24	1,52,329	13	10

93. Refer to answer to Question No. 91 (A).

94. We have adopted a system of cost accounting but regret we cannot send our cost sheets as we have only one copy which is on our file.

96. The rates allowed by the Income-tax Authorities for depreciation is 7½ per cent. on machinery and 2½ on buildings. We consider the amount allowed should be 10 per cent. on machinery and 5 per cent. on buildings.

97. Sum required for depreciation at Income-tax rate:—

A.

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	At 2½ per cent.	At 5 per cent.
	Rs. A. P.	Rs. A. P.
Buildings	40,467 8 0	80,935 0 0
	At 7½ per cent.	At 10 per cent.
	Rs. A. P.	Rs. A. P.
Machinery other plant and machinery .	2,08,650 0 0	2,78,200 0 0
Other assets	...	...

B.

	At 2½ per cent.	At 5 per cent.
	Rs. A. P.	Rs. A. P.
Buildings	29,440 0 0	58,880 0 0
	At 7½ per cent.	At 10 per cent.
	Rs. A. P.	Rs. A. P.
Machinery other plant and machinery .	1,08,525 0 0	1,44,700 0 0
Other assets	...	...

Cost of Production.

101. The Company is able at present to provide all the working capital.

104. The average value of stocks of finished cement held by the Company is about Rs. 1,20,000. The period which normally elapses between production and payment is about 3 months.

105. It is necessary to hold three months supply of coal and 6 months supply of raw material. Value of boilers Rs. 11 per ton d/d. Consumption 1,000 tons monthly. Value of 3 months supply=Rs. 33,000. Coal for Rotary Kiln working full capacity 2,000 tons monthly at Rs. 17-6 per ton d/d 3 months supply=Rs. 1,04,325.

106. The Company have their Head Office in Bombay under the control of the Managing Agents.

107. A. The annual amount of the Head Office expenses, Rs. 97,213-4-6.

B. Agents' Commission, Rs. 52,842-8-3.

108. As. 4 per ton on sales and 10 per cent. on net profit.

109. A. The cost of Head Office expenses per ton, Rs. 1-14-0.

B. Agents' Commission per ton, Rs. 1-1-0.

The above two replies on present output.

C. Cost of Head Office on full capacity per ton, Rs. 1-5-0.

D. Do. Agents' Commission, Rs. 0-12-0.

XI. CLAIM FOR PROTECTION.

114. The conditions laid down in paragraph 97 of the Fiscal Commission's Report are satisfied in the case of the cement industry.

A. The industry does possess natural advantages as stated.

B. The industry cannot develop as it should without the help of protection.

C. When developed it is likely that the industry will be able to face world competition.

115. The knowledge of the use of cement in India is small, but when that is developed consumption may increase.

115. We claim that the cement industry satisfies both the conditions mentioned in paragraph 98 of the Fiscal Commission's Report.

A. and B. Yes.

116. The fact that the industry was under the control of the Indian Munition Board during the war is sufficient to make it of importance on National Grounds.

117. Answered in No. 114.

118. We ask for protective duty on portland cement only.

120. Present duty Rs. 9 per ton.

121. We consider a duty of Rs. 25 per ton necessary as we do not consider a lesser duty would be sufficient protection to keep foreign cement out of the country.

122. It is a fact that the productive capacity of Indian cement factories at present exceeds the total consumption of the country, but the exclusion of foreign cement will increase production and therefore cheapen the cost of manufacture thus enabling the Companies to sell at a lower price which will tend to promote the use of cement in India and further increase production.

APPENDIX.

Lease for Limestone Quarries.

This Indenture made the day of One Thousand Nine Hundred and between the Secretary of State for India in

Council hereinafter called the "lessor" (which expression shall where the context admits be deemed to include his successors in office and assigns) acting through the Deputy Commissioner, Jubbulpore, of the one part and The Katni Cement and Industrial Company, Limited, Bombay, hereinafter called the $\frac{\text{lessee}}{\text{lessees}}$ (which expression shall be taken to mean and include the said The Katni Cement and Industrial Company, Limited, Bombay.

$\frac{\text{His}}{\text{Their}}$ heirs executors administrators representatives and assigns except where the context requires another or different meaning) of the other part witnesseth that in consideration of the rents and royalties and $\frac{\text{lessee's}}{\text{lessees'}}$ covenants hereinafter reserved and contained the lessor doth hereby demise unto the $\frac{\text{lessee}}{\text{lessees}}$ the lands measuring 22·65 acres situated in mauza Tikuri comprised in Patwari Circle No. in tahsil Murwara, District Jubbulpore, as described in the Schedule and delineated in the plan hereto annexed and therein coloured (hereinafter called the said lands) to hold the same for a period of ten years commencing from the and ending on for the purposes and subject to the terms and conditions set forth below namely:—

1. The $\frac{\text{lessee}}{\text{lessees}}$ shall have the right in and upon the said lands to quarry limestone and to convert it into lime or cement and to do all acts necessary for the extraction of the limestone or the manufacture of the lime or cement including the erection on the said lands of buildings and plant required for these purposes and also to take lead and carry away over the said lands the limestone to be gotten as aforesaid and the lime and cement to be manufactured and to dispose of such manufactured articles at $\frac{\text{his}}{\text{their}}$ own will and pleasure.

Provided and the lessor hereby agrees that before commencing to quarry on any part of the said lands the $\frac{\text{lessee}}{\text{lessees}}$ shall give to the Deputy Commissioner two calendar months' notice in writing and such part of the said lands shall not be so used if the Deputy Commissioner shall within two calendar months after the receipt by him of such notice object to such user unless the objection or objections so stated shall on reference to the Local Government be annulled or waived by such Government.

Provided also that the lessor or any lessee or person authorised by him in that behalf shall have liberty and power to enter into and upon the said lands and to search for win work dig get raise convert and carry away any mineral other than limestone and any other substances and for those purposes to sink drive make erect construct maintain and use such pits shafts inclines drifts levels waterways alleys water drains reservoirs engines machinery plant buildings canals tramways railways roads ways and other works and conveniences as may be deemed necessary or convenient provided that in the exercise hereof no hindrance or interference shall be caused to or with the liberties powers and privileges of the $\frac{\text{lessee}}{\text{lessees}}$ under these presents and that fair compensation shall be made to the $\frac{\text{lessee}}{\text{lessees}}$ for all loss or damage sustained by the $\frac{\text{lessee}}{\text{lessees}}$ by reason or in consequence of the exercise hereof the amount of compensation to be settled in case of difference by reference to the Local Government whose decision shall be final.

Provided further that the lessor and any lessee or person authorised by him in that behalf shall have liberty and power to enter into and upon the said lands and to make upon over or through the same any railways tramways irrigation works or roads for any other than the purposes aforesaid and to get from the said lands stone gravel earth and other materials for making maintaining and repairing such railways tramways irrigation works and roads or any existing railways tramways irrigation works or roads and to go and repass at all times over and along any such railways tramways irrigation works or roads for all purposes and as occasion may require and to transport ore through the said lands and to enter into and upon the said lands for the purpose of such transport and the $\frac{\text{lessee}}{\text{lessees}}$ shall not be entitled to any compensation or any loss or damage or injury which the $\frac{\text{lessee}}{\text{lessees}}$ may sustain or be put to by reason or in consequence of the exercise of the rights and privileges herein reserved.

2. The $\frac{\text{lessee}}{\text{lessees}}$ shall as from the day of during the subsistence of this lease pay to the lessor the certain half-yearly rent of Rs. 276-0-0 the first payment of rent to be made on the fifteenth day of $\frac{\text{January}}{\text{July}}$ 192 for the period commencing from the said day of 192 to the fourteenth day of $\frac{\text{January}}{\text{July}}$ 192 calculated at the said half-year rate of rent and the subsequent payments to be equal and to be made every half-year thereafter that is on the fifteenth day of January and July in each year. For and in respect of the rent so paid the $\frac{\text{lessee}}{\text{lessees}}$ may in the period in respect of which the same is payable raise manufacture sell and export from the said lands such aggregate quantity of limestone lime or cement as at the rates in the next succeeding clause mentioned would produce for that period royalties equal in amount to the rent paid by the $\frac{\text{lessee}}{\text{lessees}}$ but the said certain half-yearly rent as from the said day of 192 shall always be paid whether such quantity shall in fact be raised manufactured and exported or not.

3. Secondly the $\frac{\text{lessee}}{\text{lessees}}$ shall during the first twelve months of the said term that is from the day of to the day of pay to the lessor on or before the day of a royalty at the rate of rupee one per 100 maunds of unslaked lime and twelve annas per 100 maunds of slaked lime and eight annas per 100 maunds of limestone and twelve annas per 100 maunds of cement on the quantity of lime or limestone or cement extracted by the $\frac{\text{lessee}}{\text{lessees}}$ and exported by the $\frac{\text{lessee}}{\text{lessees}}$ or others outside the limits of mouza Tikuri and shall during the remainder of the said term pay the royalty on all lime or limestone or cement extracted and exported from the said lands over and above the quantity which the $\frac{\text{lessee}}{\text{lessees}}$ by clause 2 of this lease $\frac{\text{is}}{\text{are}}$ authorized to work and get in respect of the said certain rent.

Provided that the rates of royalty herein prescribed shall be liable to revision by the Local Government of the Central Provinces acting on behalf of the lessor quinquennially counting from the date of this lease and all royalty falling due after the dates of such revision shall be chargeable and paid at the rates revised. The revised rates shall be duly notified to the $\frac{\text{lessee}}{\text{lessees}}$.

4. The $\frac{\text{lessee}}{\text{lessees}}$ shall pay to the lessor a further yearly rent equal to the

land revenue which the Deputy Commissioner shall certify to be assessed upon the land or if the land be the property of Government or in reserve forest then at four annas per acre of the land the surface whereof shall be occupied or used by the $\frac{\text{lessee}}{\text{lessees}}$ for any of the purposes of this demise and so in proportion for any less quantity than an acre the said surface rent to be paid by equal half-yearly payments on the same days as the said certain rent of Rs. 276 (two hundred seventy-six) is hereinbefore made payable the first of such payments to be made on such of the said days as shall happen next after such occupation or use shall commence and the last half-yearly payment thereof to be made on such of the said days as shall happen next after such occupation or use shall have ceased and the land shall have been restored and rendered fit for cultivation again or for the possible uses from which it derived its former market value provided always that no such rent shall be paid or demanded in respect of any roads or ways now in existence.

5. The $\frac{\text{lessee}}{\text{lessees}}$ shall at all times during the said term keep or cause to be kept at an office to be situate upon or near the said lands correct and intelligible books of accounts upon such plan or principle and in such form as may be approved by the Local Government which books shall contain accurate entries showing from time to time (1) the area used for mining operations during each calendar month (2) the quantity and selling price of all limestone won sold and exported from the said lands and of lime and cement manufactured sold and exported herefrom together with a full and true account of the cost of extraction manufacture carriage and freight and such other charges as are usually incurred in conveying and causing the same to be delivered to the purchasers in terms of their sales and (3) the number of persons employed in the mines or works on or upon the said lands and the $\frac{\text{lessee}}{\text{lessees}}$ shall also furnish free of charge to such officer and at such times as the Local Government may appoint true and correct abstracts of all or any of such books of accounts and such information and returns as to all or any of the matters aforesaid as the Local Government may prescribe and shall at all reasonable times allow such officer as the Local Government shall in that behalf appoint to enter into and have free access to the said office for the purpose of examining and inspecting the said books of accounts and to take copies thereof and make extracts therefrom.

6. Arrears of rent and royalty due under the lease are recoverable under the provisions of Section 225 of the Central Provinces Land Revenue Act, 1917, as an arrear of land revenue.

7. The $\frac{\text{lessee}}{\text{lessees}}$ shall at the $\frac{\text{lessee's}}{\text{lessees'}}$, own expense erect and at all times maintain and keep in repair boundary marks and pillars along the boundaries of the said lands according to the demarcation shown in the plan hereto annexed.

8. The $\frac{\text{lessee}}{\text{lessees}}$ shall at all reasonable times allow the Deputy Commissioner or any one deputed by him to inspect the said lands and the buildings and plant erected thereon and the $\frac{\text{lessee}}{\text{lessees}}$ shall assist such persons in conducting the inspection and afford them all information they may reasonably require.

9. The $\frac{\text{lessee}}{\text{lessees}}$ shall not assign or underlet the said lands or any part thereof or the rights or privileges therein hereby granted or any of them without the previous written sanction of the Local Government and in the case of any such assignment or transfer sanctioned under this provision the instrument thereof shall within three calendar months from the date of its completion be produced to the Deputy Commissioner and the sum of Rs. 50 paid to the Deputy Commissioner as the fee for registration thereto in his office.

10. The lease may be surrendered by the $\frac{\text{lessee}}{\text{lessees}}$ at any time after six months' previous notice in writing given to the Deputy Commissioner.

11. On the expiration of the term of this lease of its earlier determination under clause 10 or 13 the $\frac{\text{lessee}}{\text{lessees}}$ shall pay to the Deputy Commissioner for all land which has been rendered useless for agriculture through the exercise of the powers demised by this lease such sum as the Deputy Commissioner may fix as equivalent to the capitalized value of the land revenue of such land rendered useless.

12. If the $\frac{\text{lessee}}{\text{lessees}}$ shall at any time during the said term commit a breach of any condition of this lease it shall be lawful for the Local Government to cancel this lease and take possession of the said lands or in the alternative to receive from the $\frac{\text{lessee}}{\text{lessees}}$ such penalty for the breach not exceeding four times the amount of the said certain half-yearly rent as the Local Government may fix.

13. This lease is subject to all rules and regulations which may from time to time be issued by the Local Government regulating the working of the quarries and other matters affecting the safety health and convenience of the $\frac{\text{lessee's}}{\text{lessees'}}$ employees or of the public whether under the Indian Mines Act or otherwise.

14. The $\frac{\text{lessee}}{\text{lessees}}$ shall furnish such reports and returns relating to output labourers employed and other matters as the Local Government may prescribe.

15. Whenever any doubt difference or dispute shall hereafter arise touching the construction of these presents or anything herein contained or any matter or thing connected with the said lands or the working or non-working thereof or the amount or payment of any rent or royalty reserved or made payable hereunder the matter in difference shall be decided by the Local Government whose decision shall be final.

THE SCHEDULE ABOVE REFERRED TO.

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Description of Land.

Name of Mauza.	Khasra No.	Area in Acres.

In witness whereof the said parties have set their hands hereto the day and year first above written.

Signed and delivered by for and on behalf of the Local Government of the Central Provinces acting in the premises for and on behalf of the Secretary of State for India in Council in the presence of

Names and addresses of witnesses.

Signed by the abovenamed in the presence of—

Names and addresses of witnesses.

Statement II.—Further statements submitted by the Katni Cement and Industrial Company. (Letter, dated 9th October 1924.)

We have the honour to acknowledge receipt of your letter No. 843 of the 13/15th ultimo, and as requested we beg to return herewith the record of evidence duly corrected as far as possible.

2. With reference to the oral examination of the representative of these Companies it was not possible for Mr. Simpson to amplify or explain a number of points which were raised by the Board on our written statement as the latter was drawn up by our Manager who is at present in England, but questions referred to have now been gone into and we give below the questions and relative information thereto as required by the Board.

3. Your Board wished to know:—

(1) The output (in tons) per year of Firebricks, etc., since the Pottery Works were started.

(2) Our average selling prices in 1912, 1913, and 1914, 1916-17, 1917-18, 1921-22, 1922-23 and 1923-24.

and Enclosures I to III* attached hereto afford the requisite information.

4. A question was raised as to our written reply to question 80 in the questionnaire in which we stated that the sum due for depreciation was Rs. 2,78,200 (which represents 10 per cent. on the value of machinery at 31st March 1924) and we were invited to reconcile this with the figure of Rs. 2,08,650 quoted in our written reply to question 97 in the questionnaire and we have to point out that the latter figure of Rs. 2,08,650 represents the sum required for depreciation of the value of machinery at 31st March 1924, at the rate allowed by the Income-tax Authorities, *i.e.*, 7½ per cent. only.

5. A question was raised as to the figures given in our written reply to Question 91 of the questionnaire with regard to "Materials" under the heading of "Works Costs," and an explanation was desired as to the heavy increase in 1922-23 and corresponding heavy fall in 1923-24 and the explanation of this is, that during 1922-23 we had to purchase limestone from outside sources and the price of this *plus* freights solely accounts for the heavy increase in 1922-23. During the latter part of 1923 supplies became available for our deposits which exist near the Jubbulpore Co.'s deposits and this works out much cheaper than the purchases from outside sources which largely accounts for the reduction in 1923-24.

6. With regard to "Power and Fuel" under the same heading information was desired by the Board as to whether the figures quoted included coal and freight on same only or other items and we have to advise you that the figures quoted include cost of coal, freight, handling on works, supervision and all power house establishment charges.

7. Information was also desired by the Board as to what proportion of capital has gone into the Firebrick Department of this concern, and the amount is Rs. 5,00,000.

8. With regard to the question of reserves including depreciation fund or otherwise, we have to advise you that our assets are directly depreciated every year, and the reserve fund does not therefore include any amount for depreciation.

9. Another question was raised as to the present day cost of replacement of our plant. This is a question which could not be answered with any degree of accuracy without referring to the makers of our plant, which would involve considerable delay, but as a rough estimate we do not think we should be far wrong in giving Rs. 55,63,984 as the present cost of replacement. This figure is double the original cost of our plant and we think this would be just about equivalent to present day price.

10. As requested we enclose herewith three copies of our Balance Sheets and also a statement showing the quantities of cement railed from our Works

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* Not printed.

during the last two years to Calcutta, Bombay, and to other destinations which have taken 5 per cent. of our output or more, and a final figure showing railments to all other destinations. This statement shows railments from our Katni Works for the last two years and from our Jukehi Works since commencement of railments. In this connection we would point out that all the above questions arose on the oral examination of our representatives as far as regards the Katni Company and the information given above in reply to various questions relate to the Katni Company only. We think that we have covered all the points raised by the Board, but we shall only be too glad to give any further information that may be required.

Enclosure I.

Pottery Production in tons.

——	Bricks, tiles, pipes, firebricks.		Fireclay.	
	Tons.	Cwts.	Tons.	Cwts.
January to December 1915 . . .	391	6	..	
" " 1916 . . .	535	0	..	
" " 1917 . . .	2,488	4	..	
" " 1918* . .	2,046	12	..	
" " 1919 . . .	961	8	..	
" 1920 to March 1921 . .	4,378	15	..	
April 1921 to March 1922† . . .	7,026	6	69	4
" 1922 " 1923 . . .	6,726	4	783	19
" 1923 " 1924 . . .	6,145	15	636	15

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* Manufacture of tiles discontinued and figures from 1918-1922 represent railments of firebricks and glazed stoneware pipes and fittings only.

† Manufacture of glazed stoneware pipes and fittings discontinued. Therefore figures from 1922 represent firebricks only.

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Enclosure II.

Statement showing average prices realised for Katni Portland Cement.

	1916-17			1917-18			1918-19			1919-20			1920-21			1921-22			1922-23			1923-24		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
April	38	10	0	58	5	0	51	14	0	65	0	0	80	14	5	81	5	3	...			60	1	2
May	43	9	0	59	13	0	52	4	9	67	8	6	78	14	11	76	14	10	70	9	7	56	11	6
June	41	7	6	59	10	0	55	5	0	68	11	0	76	14	10	81	11	3	69	12	6	56	1	0
July	41	9	0	56	14	0	67	3	0	78	4	0	72	3	3	79	15	7	68	6	9	56	15	3
August	47	10	0	60	14	0	61	1	0	73	8	4	74	9	0	84	9	2	67	4	6	51	15	9
September	47	8	0	62	11	6	64	3	0	74	7	2	76	0	9	84	0	7	66	2	3	53	9	10
October	47	2	0	60	3	0	64	8	0	73	5	0	75	12	0	88	10	1	69	10	8	49	1	9
November	51	1	0	59	2	0	64	1	6	74	2	1	70	1	4	82	8	9	70	3	3	56	9	8
December	52	6	0	57	4	0	65	11	0	74	4	5	72	15	4	75	4	10	62	10	10	52	5	8
January	53	14	0	57	6	4	67	7	0	74	10	10	72	15	9	75	6	9	60	1	0	56	3	10
February	54	8	0	58	8	0	66	9	0	79	9	10	78	4	0	82	4	3	61	6	3	48	11	3
March	56	15	8	57	5	0	64	8	0	80	13	2	78	12	0	79	2	8	58	8	10	46	15	10
	579	4	2	707	15	10	748	11	3	884	4	4	908	5	7	971	14	0	724	12	5	645	7	0
Average	48	4	4	58	15	11	62	6	3	73	11	0	75	11	1	80	15	10	65	14	2	53	12	7

Statement III.—Replies to questionnaire (1) (b), submitted by the Katni Cement and Industrial Co., Ld., and the Jubbulpore Portland Cement Co., Ld., Bombay, dated 23rd January 1925.

With further reference to your letter No. 1270 of the 24th November 1924, we now beg to advise you as follows:—

2. (1) The figures we have given represent in the main, consignments to stations where competition of foreign cement is severe

* * * * * * *

3. The cost shown in Form II for power and fuel for the year 1923-24 includes (as pointed out in our letter of 9th October 1924) cost of coal and freight, handling on works supervision and all power house establishment charges. The approximate cost of charges excluding cost of coal and freight thereon is estimated for the year 1923-24 to be Re. 1-2-0 per ton.

4. Statements giving details required are enclosed herewith.*

5. With regard to the question of packing in barrels our Agents in Calcutta (Messrs. Balmer, Lawrie & Co., Ld.) have recently been giving this matter their close attention with a view to meeting the demand for cement in barrels and we do not think we can do better than to enclose herewith a copy of their letter to us of the 1st December 1924, in which they give full details as to costs, etc.

We regret the delay which has occurred in sending you all the details you require, but this is due to the cause referred to in our letter of the 17th ultimo and also to our having to communicate with various Agents regarding the details required.

Enclosure I.

Copy of letter from Messrs. Balmer, Lawrie & Co., Ld., Calcutta, to Messrs. C. Macdonald & Co., Bombay, dated 1st December 1924.

We acknowledge receipt of your letter of the 26th ultimo and have pleasure in giving you details of cement casks' prices we have by us.

It will be remembered that early in the year we imported a certain number of cement shooks and as these are the latest quotations we have by us, we are advising on these prices at 1/5 exchange.

Rate per cask in Godown.

	Rs.	A.	P.
Shooks, Tops and Bottoms	2	9	0
Putting together	0	8	0
Paper	0	0	6
Hoops	0	2	0
	3	3	6

Over and above this rate at the moment we have charges for carting the casks to the cement godown and labour for filling the casks.

These casks are somewhat smaller than the ones imported containing British cement, and contain 336 lbs. nett against the British 375 lbs. nett.

We are at present awaiting prices from home for similar casks, tops and bottoms in larger quantities and will advise you of any difference.

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* Not printed.

Regarding casks made up from Indian timber, we are at present going into this. We have been quoted Rs. 2-1-0 against the imported rate of Rs. 2-9-0, but the rate did not allow for the packing we require, and as we require separate bundles containing sufficient shooks for one cask only (to avoid sorting at this end), their revised quotation will be increased.

With regard to Indian timber, we have not yet tested its suitability for cask making, but we are going into this on receipt of samples shortly due.

We should point out that we anticipate some difficulty in securing suitable and skilled labour to make up these casks in large numbers, but the whole question is being closely gone into.

If there is any other information you may require on this subject kindly let us know.

Statement No. IV.—Further supplementary information submitted by the Katni Cement and Industrial Company, Limited, dated the 2nd February 1925.

We beg to acknowledge receipt of your telegram of the 31st ultimo to which we wired you to-day reading as follows:—

> Your telegram thirty-first. Katni output thirty-seven thousand one hundred and twenty tons seventeen cwts. Katni sales thirty-five thousand four hundred and thirty-five tons three cwts.

All the above figures are for the calendar year 1924.

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THE KATNI CEMENT AND INDUSTRIAL COMPANY, LIMITED.

B.—ORAL.

Evidence of Mr. J. BOYD, Mr. E. C. W. SIMPSON, and Mr. M. M. LUDLOW, recorded at Bombay on the 11th September 1924.

President.—You have told us in answer to question 5 that your full capacity is 60,000 tons per annum of cement and 9,000 to 12,000 tons of firebricks. You have given us your actual output of cement. Can you give us the output of firebricks just to give us an idea to what extent your operations are connected with anything other than cement?

Mr. Simpson.—I have not the details available here at the moment, but I will let you have them later in the day.*

President.—I find that in 1923 you were operating at about 85 per cent. of your capacity and in the first quarter of the current year you were continuing to do that. Of course, being one of the older companies, you are better off in that respect than most of them. Then, in answer to question 7 you say "The factory is situated at Katni, Central Provinces, which is considered an advantageous situation being central, and a junction of three important railways." That no doubt is true, but then your central position means that you are equally far from everywhere. You are a long way off from all your markets. You are about Rs. 12 distant from Calcutta and about Rs. 13 from Bombay?

Mr. Simpson.—Yes.

President.—So that it is obvious that it is one of the difficulties in India that the raw materials do not occur in sufficient quantities near the big markets.

Mr. Simpson.—That is true.

Mr. Ginwala.—Who uses these firebricks that you manufacture?

Mr. Simpson.—The majority of these are sold to the Railway Companies.

Mr. Ginwala.—Are they a sort of bye-product or do they involve a special process?

Mr. Simpson.—It is a separate process altogether.

Mr. Ginwala.—Was there any point in manufacturing firebricks along with cement?

Mr. Boyd.—The original idea was to make not only firebricks, but also bricks and tiles in addition to cement.

Mr. Ginwala.—Is there anything in common between the two processes—the manufacture of firebricks and the manufacture of cement?

Mr. Boyd.—It is more or less a separate business. The only part where the firebrick section comes in contact with the cement section is the supply of power.

Mr. Ginwala.—I suppose the primary raw materials are the same?

Mr. Boyd.—In the early days the raw materials then required were close to the works. Now-a-days they are brought from a distance of 30 to 40 miles for manufacturing firebrick. Originally the raw material we had there was very suitable for making building bricks and tiles, and that was the reason why we took up the manufacture of firebricks also.

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* Statement III, Enclosure I.

Mr. Ginwala.—Well, then it will introduce a complication when we come to ascertain how far it affects the cement business. The plant and everything else, I suppose, belong to the cement works?

Mr. Boyd.—Yes.

President.—It would affect your block account, so some separation may be necessary.

Mr. Ginwala.—Probably your overhead charges would be affected to some extent, would they not?

Mr. Boyd.—The two accounts are kept absolutely separate.

Mr. Ginwala.—They are not shown in these accounts that you have sent in?

Mr. Simpson.—Not to my knowledge.

Mr. Ginwala.—So far as your firebrick business is concerned, I take it that you do not complain of any unfair competition?

Mr. Simpson.—Not from outside.

Mr. Ginwala.—As regards your answer to question 10 did you read in this morning's paper the reply given by Government with regard to cement?

Mr. Boyd.—Yes.

Mr. Ginwala.—You say the cement is equal in quality and appearance to imported cement, but some of the Railway engineers deny it?

Mr. Boyd.—That is all a matter of opinion.

Mr. Ginwala.—Their case is that the quality is not consistent?

Mr. Boyd.—I don't agree with that.

President.—It is quite possible that the South Indian Railway might have been buying in small quantities from the Southern India Industrials in Madras—a company which manufactures cement in a small way. We do not know anything about what they are capable of doing.

Mr. Boyd.—There is another factor which is the question of cost, Madras being so far away. It may have something to do with the cost.

Mr. Ginwala.—We must have your explanation as to what you have to say with regard to the opinion of the railway engineers leaving aside the question of cost. They say that the quality is not good; they say it is not consistent in quality.

Mr. Boyd.—I do not agree with that.

Mr. Ginwala.—Secondly they say that, in the climate of Southern India, Indian cement deteriorates because of its being packed in bags. What have you got to say to that?

Mr. Simpson.—My answer to that is that we sell many hundreds of tons of cement in Southern India and we have had no complaint. What affects one buyer must affect another.

Mr. Ginwala.—What part of Southern India?

Mr. Simpson.—Madras, Mysore, Cochin, Calicut and so on.

Mr. Ginwala.—Are these public bodies and Government who take the cement?

Mr. Simpson.—To a certain extent. A lot goes to Government though not directly.

Mr. Ginwala.—Then you don't agree with that complaint either?

Mr. Simpson.—No.

Mr. Boyd.—There is one question I would like to put. They say the cement deteriorates. What do they mean? Does it lose in tensile strength, does it get quick setting, is it slow in setting; what is the deterioration?

President.—I am afraid the Members of the Board are not in a position to answer that question.

Mr. Ginwala.—Government say "They have now ascertained in the first place that the engineers of the railway prefer British cement as in their experience it is more uniform in quality."

Mr. Boyd.—I don't agree with that statement.

Mr. Ginwala.—" Secondly, as regards Northern India cement, it is more expensive than British cement and in addition it is packed in bags instead of barrels. The result is that there is risk of loss in transit, and moreover cement is more apt to deteriorate in the damp climate of South India " That is the second point.

Mr. Boyd.—That might be. The fact that it is packed in barrels is undoubtedly better, I am prepared to admit. But as far as my experience goes, it does not seem to make much difference in the monsoon. During the period when I was in China all our local stuff was packed in bags instead of barrels because it was cheaper, and it served the purpose. So I don't think that argument holds good.

President.—You would admit that there is at any rate a widespread opinion that packing in barrels is better.

Mr. Boyd.—I quite admit that.

Mr. Ginwala.—Have you tried to get over this difficulty of moisture getting into the bags by making them water-proof?

Mr. Boyd.—I don't think it would pay. As a matter of fact I have seen bags lying about for three or four months in our godowns during the monsoon, and beyond a very slight change in the outside, the inside was good. Another way of looking into that is that barrels are by no means water-tight.

Mr. Ginwala.—They have some paper inside.

Mr. Boyd.—They put some brown paper inside which is not water-proof. We used to do it, but it did not do much good.

Mr. Ginwala.—Then, there is the third point. " They are inclined to think that the question of packing is one of great importance in connection with the extended use of Indian cement in Indian railways, and this is a point on which the Tariff Board's report on the cement industry will no doubt throw considerable light."

Mr. Boyd.—The first point is that there is a very considerable amount of enquiry made to get suitable wood at a reasonable cost for barrels.

Mr. Ginwala.—But then, in that case, if the engineers persist in believing that the cement deteriorates, it is a permanent disability from which you are suffering, is it not?

Mr. Boyd.—The majority of engineers do not take that view.

Mr. Ginwala.—I do not know. This is a view that has been presented to Government.

Mr. Boyd.—Quite.

Mr. Ginwala.—Messrs. Jessop & Co. have given their opinion as to the relative strength of lime mortar compared with cement mortar and they say that, according to their figures, unless cement is sold at Rs. 27 a ton, people would continue to use lime mortar. That is what it comes to.

Mr. Boyd.—That is quite right. If you are not going to use cement instead of lime, you are not taking advantage of the strength of the former. In the case of an ordinary building, this is not so important as in the case of reinforced concrete.

Mr. Ginwala.—You are right. That comes to this: no matter how much stronger cement makes the building, that strength is not required.

Mr. Boyd.—That is the idea. (Ordinary buildings like houses are here meant.)

Mr. Ginwala.—We have got another opinion, which cuts it down even more. The Secretary to the Government of Bengal, Public Works Department, says that cement will never replace lime and can only compete with lime if its price be, say, 1¼ times the price of unslacked ghooting lime. That means that you will have to sell it at Rs. 13 or Rs. 14 a ton.

Mr. Boyd.—Absolutely impossible.

Mr. Ginwala.—It makes the prospect of cement being profitable rather poor, so far as buildings are concerned.

Mr. Boyd.—I don't think that any person is going to use cement in an ordinary building. It would only come in where lime is very expensive or where lime could not be got. I don't think that any engineer will use cement in place of lime where lime is cheap. It would simply be a matter of cost.*

Mr. Ginwala.—In bigger towns there is a tendency to use more cement than lime.

President.—In what direction do you look forward to an increased use of cement?

Mr. Boyd.—Reinforced concrete.

President.—Apart from reinforced concrete, is there anything else you can mention?

Mr. Boyd.—Dams, retaining walls, etc.

President.—Foundations for buildings?

Mr. Boyd —Yes.

President.—Would all this be of the nature of concrete work?

Mr. Boyd.—Preferably, yes.

President.—I rather gather that lime concrete is used for great many purposes.

Mr. Boyd.—Yes.

President.—What are the chances of cement concrete replacing lime concrete, and at what level of price would it be likely to occur? That is what we want to get at. We know that it has been examined in the Punjab by the Irrigation Engineer there?

Mr Boyd.—When you are putting up a building, there is no absolute necessity for putting in any cement concrete in your foundation. As cement is very good, for preference, the average engineer, if he is not tied down for money, would put it in. On the other hand you have got to consider the economic point. For instance, in Western countries, a considerable amount of concrete is now being used for foundations, partly because there is less chance of sinking, and partly because slightly increased cost does not matter a great deal. But what the prospect is of its being replaced in this country I am afraid I cannot say.†

President.—What the Bengal Government have told us is that concrete is not much used because the cost of railing the aggregate for the concrete is very high. Upcountry it may be rather important with the chances of a big expansion in the consumption of cement in upcountry markets to which the cement companies attach great importance, because they have got natural protection already owing to the freight. Then there is the question of lime *versus* cement for big irrigation works. We have heard of one case. We have not got the replies of the Punjab Government yet. We understand that they went into the whole question of how much it would cost according to the materials they used. If you could give us any help on that aspect of the subject, it would be of great assistance to us.

Mr. Boyd.—I am afraid I could not.

President.—You don't feel that you can put a figure on it?

Mr. Boyd.—No.

Mr. Ginwala.—Would you accept for practical purposes 3 to 1 as the proper proportion between lime and cement for concrete?

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* An important point is that lime mortar is 1 : 2 sand whilst cement mortar of 1 : 6 sand can be successfully used and is stronger than the lime mortar.

† If the soil is bad, a less thickness of cement concrete than lime. The addition of a small amount of reinforcement also reduces the amount of cement concrete necessary. This applies particularly to buildings where the pressure on the ground is fairly heavy.

Mr. Boyd.—In other words, the price of cement is three times the price of lime.

Mr. Ginwala.—It is three times the strength of lime?

Mr. Boyd.—It is more than three times.

Mr. Ginwala.—That is to say, for one part of cement, you would require three parts of lime.

Mr. Boyd.—We could not very well put it that way, because there is a certain figure ratio of cement and aggregate below which you cannot go; otherwise you don't make concrete at all.

President.—Supposing you are making concrete from cement, what do you regard as the minimum proportion of cement in the mixture?

Mr. Boyd.—1, 3, 6: one of cement, three of sand, and six of stone.

Mr. Ginwala.—Take lime now. What would be its proportions?

Mr. Boyd.—1 : 1 : 1, lime, sand, stone.

President.—As regards your answer to question 12, I find some difficulty in making out the figures. You say "About 1½ tons of raw material is required for the production of one ton of cement." Is that 1½ tons of limestone or does that include clay?

Mr. Boyd.—Yes, it is mixture. About 85 per cent. is limestone, and 15 per cent. clay.

II.—Raw Materials.

President.—You say that your full production is 60,000 tons, and that your present rate of production is about 50,000 tons. The figures in your answer to question 12 do not agree. You say that you require 50,000 tons of raw material at the present rate of production, and for the full capacity about 100,000 tons. It is not a point of great importance, but still it is better to get it corrected.

Mr. Boyd.—We have taken it as 1·66 tons of raw material for a ton of cement.

President.—In your answer to question 13, you say that about 1½ tons of raw material is required for one ton of cement.

Mr. Boyd.—It should be 1·66 tons.

President.—Of which, 90 per cent. is limestone?

Mr. Boyd.—Yes. That of course depends on the quarry. We have two quarries. In the one case, it will be 90 per cent. and in the other 85 per cent.

President.—Then in your answer to question 19, you give us the cost of raw materials. That is simply the cost of limestone, I take it.

Mr. Boyd.—Yes.

President.—In the same answer, you mention "Labour and limestone." What exactly does that mean? So to speak they are not two separate things.

Mr. Boyd.—No.

President.—Is the labour supplied by the contractor?

Mr. Boyd.—That is including the payment to the contractor. In 1921 they were doing it by contract and in 1922 they were doing it departmentally.

President.—The total of the various items in that answer is roughly Rs. 2-7-0 a ton.

Mr. Boyd.—It would be a little less.

President.—Yes, the average is below Rs. 2. I have taken royalty and miscellaneous charges. The cost of raw material per ton of cement would be 1½ times or 1·66 times that.

Mr. Boyd.—Yes.

President.—That is a little less than the figure you have given in your cost of production where, for 1923-24, you say the cost of materials is Rs. 5.

Mr. Boyd.—Yes.

President.—Is that because there are some other things which have to be taken into account?

Mr. Boyd.—In 1923-24, we had two quarries. Up to about 1923, all the stone we got from our quarries within half a mile from the works. Now we have another quarry adjacent to the Jubbulpore works. Up to the middle of 1923, there was a very heavy freight charge—about Rs. 2-12-0 landed in Katni. It is a better quality of limestone. We mix it with our limestone. That has put the price of raw materials up.

President.—I notice in 1922-23 it was even higher. It was Rs. 7-5-0. In 1923-24 it was lower than either of the two previous years. It is in your answer to question 91.

Mr. Simpson.—I cannot explain the difference off-hand, but will let you have an explanation in due course.*

President.—We may not be able to agree with the figures in answer to question 91 because there is always the possibility of various differences. At any rate the figure given in answer to question 19 is the cost of limestone brought from quarries near the Katni works.

Mr. Boyd.—Yes.

President.—That does not include the cost of railing any limestone from Jubbulpore?

Mr. Boyd.—No.

President.—In your answer to question 19, you say under clause (3) "The above includes freight on a small portion brought from outside."

Mr. Boyd.—There might be a small addition, but it is very small.

President.—The reason why I am asking is that your figures for raw materials are higher than we have had from any of the other companies. So I thought that it would be helpful if you could give us any further information on that point.

In answer to question 23 you say "Our principal raw material will give a supply for 80 to 100 years. As years go on the cost of excavation has a tendency to increase because it has to be won from a greater depth." Is there any question of going to a greater distance?

Mr. Boyd.—I don't think so.

President.—I can understand that, as you gradually work the quarry deeper and deeper, it costs you more. But is there any question of having to draw your supplies from further off?

Mr. Boyd.—No. This figure is based on the present concessions that we have.

President.—Why do you find it necessary to bring a certain amount of limestone from near the Jubbulpore works?

Mr. Boyd.—Because the quality of our limestone is just on the limit. Another thing is that one of our quarries is 130 feet down now. If we go on very much more, it would be uneconomical. Our limestone beds do not extend all over our property. Our concessions in Katni are lying in patches.

President.—Still you say it is sufficient for 80 to 100 years?

Mr. Boyd.—That is taking into account our concessions at Mehgam These are different from the concessions of the Jubbulpore Company.

President.—What is the railway freight from Mehgam to Katni?

Mr. Boyd.—About Re. 1-8-0.

President.—That is an addition to your raw material cost?

Mr. Boyd.—It is a heavy addition.

President.—Is the excavation of the raw material entirely done by hand, or do you use power shovels?

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* Statement II, para. 5.

Mr. Boyd.—Entirely by hand.

Mr. Kale.—You were just telling us that you are not using power shovels. Is it because they are not likely to be more economical?

Mr. Boyd.—I don't think that it is economical just now.

Mr. Kale.—If you have to go deeper or further afield?

Mr. Boyd.—If we have to go deeper, we will put in electric haulages to get over it.

Mr. Kale.—You think that manual labour is cheaper than power shovels?

Mr. Boyd.—Only at present. If labour continues to go up and gets scarce, then it becomes a question of practical politics and we would have to put in power shovels.

Mr. Kale.—You don't think that it is worth while doing it now?

Mr. Boyd.—No.

III. LABOUR.

President.—You have given us a table in answer to question 28 showing the total wages bill each year. What puzzles me is that it does not seem to have any connection with your output. In 1921, you produced about 43,000 tons and the wages bill was Rs. 73,887. In 1922, the output was 44,000 tons and wages bill dropped to Rs. 40,556. In the next year the outturn went up to 53,000 tons but the wages bill dropped to Rs. 15,672, and the last figure seems to me almost impossible. Have the years gone wrong?

Mr. Boyd.—No. This is the total sum that we paid for extracting limestone. That has been put into stock. At the present moment we are running on stock. That is the explanation of that.

President.—Does not limestone deteriorate?

Mr. Boyd.—No.

President.—Therefore it is convenient to do your excavation in large quantities and then the wages bill will vary like that.

Mr. Boyd.—Yes. 1919, 1920 and 1921 were famine years. Any amount of labour was available. As many as 2,500 men were working in our quarries. Labour is one of our important points. The people are agriculturists and not industrialists. It was a matter of spending so much money in one year that explains the difference in the wages paid annually.

President.—I quite understand that.

In answer to question 30 you say "When trade improves it is almost certain that labour will have to be imported from other districts, as the labour in this district is agricultural and not industrial." What kind of trade improvement were you thinking of?

Mr. Boyd.—Bigger amount of cement being manufactured.

President.—You have only got a possible increase of 7,000 tons on the 53,000 tons you produced last year. You are already working at 85 per cent. of capacity.

Mr. Boyd.—We have another 7,000 to get on to that. The Jubbulpore Works could affect our labour supply and then there are the Central Provinces Cement Company, who want further labour supply. All these factors are taken into account.

President.—If all these three cement factories, which are competing with each other, were fully employed, there would be a greater demand on the available labour supply. Is that what you mean?

Mr. Boyd.—That is the point.

President.—One can understand that, because three factories of that size in a comparatively small area must make a considerable demand on the local labour.

Mr. Boyd.—Suppose you put 3,000 workmen on each quarry: that is a great proportion of the labour.

President.—Then you say "The new Mines Act will affect the situation." Does the Mines Act apply to lime quarries?

Mr. Boyd.—It applies to everything below 20 feet. Representations are going from the Bengal Chamber of Commerce on this point. It (a limestone quarry) was only a quarry before, but now it is a mine under the Act.

Mr. Ginwala.—I have never been able to understand when a quarry begins to become a mine.

Mr. Boyd.—Now it does not matter because, if you go 20 feet below the surface, it automatically becomes a mine under the new Act.

President.—Is there a limitation on the employment of women and children as soon as you get 20 feet below ground level?

Mr. Boyd.—Yes, under the new Act.

President.—In answer to question 32 you have given the number of foreign supervising staff but I am not quite sure whether you meant four or five Is the Chemist and burner one man or two men?

Mr. Boyd.—Two men.

President.—Then it is five altogether: the Manager, the Assistant Manager, Chief Engineer, Chemist and the Burner.

Mr. Boyd.—Yes.

President.—In answer to question 34 you say "Eventually imported labour will probably consist of Manager, Engineer and Chemist." Is there any reason why eventually these should not be Indians?

Mr. Boyd.—None. It is only a matter of time just the same as Japan has done. In fact Japan is the best example we can take.

President.—It is conceivable that for a time, when Indians are employed in capacities like that, it would be better off if they had had training in Europe or America, but there is no reason why these should not be filled by Indians?

Mr. Boyd.—None.

President.—You have compared the various rates of wages you were paying in 1915 with those you were paying in 1923. I do not want to go into the details, but there are some rather curious differences. The wages of the ordinary cooly labour have gone up apparently by a little over 50 per cent., for instance the boiler house coolies, factory coolies, etc. On the other hand in the case of the factory fitters they have gone up by 185 per cent. and in the case of engineers by 126 per cent.

Mr. Boyd.—Yes.

President.—What exactly is the reason for that? Is it that there is a limited supply of them, and there is more demand for them by more companies coming into the field?

Mr. Boyd.—Yes. As a matter of fact, if you take 1919 you will find that there is a considerable increase since then.

President.—On the other hand I see in the case of power house greasers and attendants a reduction in pay.

Mr. Boyd.—They may have been men who were there for some time and promoted to some other jobs, and their places filled by coolies promoted or something like that.

President.—That is to say there are only two or three of them and purely accidental circumstances might affect wages very much?

Mr. Boyd.—The point is this, that you do not put a particular wage against a particular job. It all depends on what a man is worth.

President.—If you employed a great number of them, the law of averages would certainly apply, but if the number is small, then one change may affect the figure enormously and the percentage will look absurd.

Mr. Boyd.—If you take a workshop or a power house where only a few men are employed you see the law of averages looks ridiculous, but if you take a big factory the law of averages will not be very far wrong.

Mr. Ginwala.—What is the total wage bill of the European supervision?

Mr. Boyd.—Rs. 4,650 for five men.

Mr. Ginwala.—Has there been any decrease in the European staff since the works were started?

Mr. Boyd.—It is just the same.

Mr. Ginwala.—You have not Indianised your staff as fast as the Government have done?

Mr. Boyd.—No.

Mr. Ginwala.—Will it be many years before you are able to train Indians who would be sufficiently competent to replace foreign supervision? Of course I know it is very difficult to answer this question, but it is possible to give some sort of an indication.

Mr. Boyd.—One of the greatest troubles that we had there is to get an Indian who comes along and realises responsibility. I have had several of them through my hands. There is only one man who has really done well, and he is now in the Gwalior Cement Company. He is the only man who realised responsibility. He got the opportunity and took it. We took considerable interest in him.

President.—On what job is he there?

Mr. Boyd.—He is Works Engineer there. I am sorry to say that a considerable number of them, the moment there is a dirty or hot job, lost their heart.

Mr. Ginwala.—That is to say, he is not prepared to do what he considers to be menial work?

Mr. Boyd.—There is no reason why he should consider it below his dignity to do what we have done. I have probably spent more time in a Boiler suit than any one else there when I was Chief Engineer. We had to do our workshop training at Home. We have got to do it in order to learn how to do it.

Mr. Ginwala.—Do you expect any educational qualifications also from such Indians?

Mr. Boyd.—Certainly. An engineer has to be a theoretical as well as a practical man.

Mr. Ginwala.—Is it not rather difficult to combine these two in this country?

Mr. Boyd.—Why?

Mr. Ginwala.—If you expect very high educational qualifications the man has got to be at a College or a University until he is 22 or 24 or more. It is hardly an age at which ordinarily a man would like to begin doing the kind of work that you were speaking of just now.

Mr. Boyd.—Take our own case at Home: we have got to sandwich our practical training with our College course.

Mr. Ginwala. But the system of education is different there. Take the system of education in India where they do not ordinarily combine College education with workshop training.

Mr. Boyd.—Why should not they?

Mr. Ginwala.—That is not the point. They could no doubt, but is it not rather the fault of the educational system than the fault of the Indian?

Mr. Boyd.—Yes.

Mr. Ginwala.—That is what I am trying to point out to you; so that if you had your choice you would have Indians educated at College along with workship training, then you will have them in your works to complete his training?

Mr. Boyd.—That is the idea.

Mr. Ginwala.—And you cannot get Indians easily who have these qualifications?

Mr. Boyd.—I got one man out of six or seven in the last few years

Mr. Ginwala.—Do you take apprentices easily?

Mr. Boyd.—Yes, if they like to come along, but the trouble is that they won't stay.

Mr. Ginwala.—Do you offer any facilities to apprentices who want to come and work?

Mr. Boyd.—What facilities do you mean?

Mr. Ginwala.—Do you give them a certain amount of pay?

Mr. Boyd.—They are all paid apprentices in our place.

Mr. Ginwala.—How much do you pay?

Mr. Boyd.—Four to eight annas a day to the uneducated, and to educated apprentices anything from 12 annas to Re. 1 a day.

Mr. Ginwala.—If you get suitable apprentices you are willing to teach them?

Mr. Boyd.—Yes. We were all apprentices at one time and we have to teach others.

Mr. Kale.—In answer to question 37 you have given figures representing the total wages paid. For 1923 the figure you give is Rs. 2,63,000 as compared with an average of about Rs. 90,000 for 1915, 1916 and 1917. It means an increase of about 170 per cent.

Mr. Boyd.—You must remember that in 1923 the plant was double the size that it was in 1916.

Mr. Kale.—Take 1917 for instance?

Mr. Boyd.—Double then too. The duplicated plant only started in 1922.

Mr. Kale.—I find from the figures of production that the production has not gone up in the same proportion because you have not reached the maximum?

Mr. Boyd.—No.

Mr. Kale.—In 1917 your production was 40,000 tons and in 1923 it was 53,000: there is an increase of only about 25 to 30 per cent.

Mr. Boyd.—1917—I think you will find that was an exceptional year. That is the only year when a single plant was able to do 40,000 tons: in the other years it was from 30 to 35 thousand tons.

Mr. Kale.—Your explanation of what appears to be an abnormal increase is that the plant has been doubled and therefore you wanted more labour?

Mr. Boyd.—Another thing is that there was a general increase given of 35 per cent. at the end of 1920.

IV.—POWER (INCLUDING FUEL).

President.—You say in answer to question 44 that ·63 ton of coal is required per ton of cement. Do you regard that as a normal figure?

Mr. Boyd.—So far as we have been using.

President.—It is a bit higher than that most of the concerns have given us.

Mr. Boyd.—We do that actually.

President.—Does the type of plant you have got affect the total consumption?

Mr. Boyd.—It is practically the same type as most plants.

President.—You say you use boiler coal which comes from 100 miles. That comes from Burhar?

Mr. Boyd.—Yes.

President.—Your kiln coal comes from Bengal?

Mr. Boyd.—I had it both from Jheria and Ranigunge.

President.—What is the relative proportion of kiln coal and boiler coal in the total actual requirements?

Mr. Boyd.—The kiln coal will be about 12 and the boiler coal about 10. That is the proportion of total actual consumption. Supposing we were using 2,200 tons of coal that would mean 1,200 tons for kiln and 1,000 for boilers.

President.—It is not very far off a half and half proportion.

Mr. Boyd.—Yes.

President.—Taking the average of your kiln coal according to the figures you have given it comes to Rs. 17-6 at the works per ton and the boiler coal Rs. 11-0-3 per ton. The difference is about Rs. 6 and the average must be Rs. 14-8-0 per ton.

Mr. Boyd.—Yes.

President.—You require a little less than ⅔ of a ton for production of cement. That is somewhere about Rs. 9-8-0.

Mr. Boyd.—Yes.

President.—But in your cost of production figures you show that the cost of power and fuel is Rs. 18, Rs. 19 and Rs. 13 for the three years 1921-22, 1922-23 and 1923-24. Does that figure for power and fuel include something else besides the cost of coal and the freight on coal?

Mr. Simpson.—I cannot explain that off-hand, as the written statement was not prepared by me. I will however go into the matter and advise you later.*

President.—I noticed similar discrepancies in the answers given by other companies and we want an adequate explanation for that. What occurred to me was that very likely in the heading power and fuel you had included expenditure incurred in burning the coal, or it may be that the coal you were actually using in 1923-24 was more expensive than the coal of which you have given the price in the earlier answer.

Mr. Boyd.—I wish to elaborate the answer. Bengal coal at Rs. 17 is what we have been getting lately but we have still an old contract running on for coal at Rs. 21-8-0 a ton at works and we have got to use it.

President.—That of course will go some way to explain the difference in the figures.

Mr. Boyd.—Yes. Presuming all that coal goes we shall get coal at Rs. 17.

President.—How long has that contract to run? In the case of our steel enquiry we heard about some prolonged contracts.

Mr. Ginwala.—Why are you not able to use the Central Provinces coal?

Mr. Boyd.—We cannot dry it. There is too much moisture in the coal. It was experimented on, but the trouble was that it cannot be dried and you cannot grind it. That is the fatal point of it. As boiler coal we use it of course. The really important point is that the moisture is there—and as you have got to pulverise the coal before you can use it—and the ordinary dryer would not take out that. It is not done by the type of dryer we have.

Mr. Ginwala.—You have given it up now as a bad job?

Mr. Boyd.—We have tried it again and again, for it makes a tremendous difference in freight. There is another point too and that is that the coal has a very considerable amount of ash apart altogether from cost. If you are going to make first class cement you should not use coal with too much ash.

Mr. Ginwala.—It would spoil the quality of the cement?

Mr. Boyd.—Naturally.

President.—It gets into the kiln?

Mr. Boyd.—It spoils by contamination.

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* Statement II, para. 6.

V.—MARKET

President.—I do not understand how you get the figure 2,50,000, in answer to question 49. If you add the imports to the Indian production it comes to 330,000 tons or something like that, unless you think consumption was abnormally high in 1923.

Mr. Simpson.—I should say it is near 350,000 tons taking the imports as well as that manufactured in India.

President.—There is one aspect of the question of the market which is important. We are rather anxious to find out, as far as we can, the total quantities of cement that are consumed at the ports and what is consumed up country. As regards imported cement it is very difficult, if not impossible, to get it, but we hope to get figures from all companies producing cement in India. I was wondering whether you could let us have a statement something like this showing the quantities of cement for each of the last two years sent to Calcutta, Bombay, to any other destinations which take 5 per cent. of your output or more and a final figure for all other destinations. I want to get a general idea as to how much cement is consumed at the ports and how much elsewhere.

Mr. Simpson.—We shall let you have that.*

President.—You say "Our principal markets are the towns on the east side of India from Calcutta in the south to Delhi in the north." Do you find it difficult to sell on the Bombay side?

Mr. Simpson.—Our Bombay sales are not so large as on the Calcutta side. There are other competitive companies who have the advantage of cheap freight.

President.—How does the freight and distance from Bombay to Bundi compare with your distance?

Mr. Simpson.—Slightly less.

President.—And of course the Kathiawad companies are a good deal nearer, but then, on the other hand, their coal is extremely expensive.

Mr. Simpson.—Yes, but they get the advantage of freight by way of sea for cement to Bombay.

President.—Are you one of the companies that participate in the contract with the Bombay Development Department?

Mr. Simpson.—Yes.

President.—I notice that in the first quarter of the current year you sold as much as 7,500 tons to Government and public bodies. It is a big jump upwards. You gave the figure in bags and I converted it into tons. But I see that in the previous three years the average amount of your output that was taken by Government and public bodies was about 7 per cent. or slightly less.

Mr. Simpson.—Yes.

President.—Of course in the war years it was very much higher naturally.

Mr. Ginwala.—Why is this? Take the figures of 1923. Was it that the Public Works Department or the Development Department bought more?

Mr. Simpson.—Possibly due to that I should say.

President.—It amounts to 57 per cent. of your output in the first three months. It is an enormous jump up. On the other hand, of course, you may get no more orders for the next three years.

Mr. Simpson.—It is not possible to say what the increase is due to without analysing these figures I cannot tell you off-hand.

Mr. Ginwala.—Your biggest single contract is with the Development Department?

Mr. Simpson.—Yes.

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* Statement II, Enclosure III.

Mr. Kale.—Why do you think that the export of cement from India is not probable? What are your reasons?

Mr. Simpson.—Mainly owing to the sea freight from here to the markets to which we can export.

Mr. Kale.—Don't you think that the factories which are situated on the coast are likely to have some advantage in that respect?

Mr. Simpson.—It is not so much a question of internal freight as freight from an Indian port to destination. The freight from a European port to the markets to which we can export is good deal cheaper.

Mr. Kale.—Take the Persian Gulf, for instance. Don't you think that it might be probable that some Indian firm might be able to send their stuff there?

Mr. Simpson.—Provided a reasonable sea freight is offered there is a chance.

Mr. Kale.—That is the only difficulty?

Mr. Simpson.—That is the obstacle.

VI.—FOREIGN COMPETITION.

President.—In answer to question 63 you say "We believe that in many cases specially low freight is offered from England." Have you any definite information underlying that suggestion?

Mr. Simpson.—We have no definite evidence; what we have heard is that specially low freights are being offered, and that heavy rebates are allowed in many cases.

President.—I think the freight you have given is a bit higher than that given by some of the other companies?

Mr. Simpson.—The information we have is 16 to 20 shillings. It is very difficult to get any accurate information from this end.

President.—That I can well understand. But what I wanted to find out was whether you have had any definite information. I see that you suggest that some arrangement should be made with the railway companies in the form of bounties to enable them to carry cement at a low rate. If any claim of that kind were to be put forward how would that be adjusted as between different companies? Have you considered the question at all as to what sort of adjustment would have to be made?

Mr. Simpson.—No, I can't say that we have. The obstacle we are up against as far as regards reductions in railway freights is agreement between the Railway companies themselves. One company would be perfectly willing to reduce, but they are prevented from doing that by an agreement with other companies.

President.—The two most important railways you are concerned with will come under State management and incidentally I should think that you might be able to get concession rates between Katni and Jubbulpore, which you do not get at present. But if anything were given by way of subsidy or bounty which was to take effect as a reduction of railway freight, how would the railways pass it on, in what form would it be? Would it be a certain percentage reduction on the ordinary commercial rate that they charge, or how would it be arrived at?

Mr. Simpson.—A special concession on the rate they would charge, ordinarily.

President.—It would have to be a percentage, I take it?

Mr. Simpson.—Yes.

President. A lump sum reduction might operate differently on different companies. If a lump sum reduction is made it might wipe out the freight altogether in the case of companies nearer the market. In the case of the Sone Valley Company, for instance, it might wipe out the whole of their freight to Calcutta. It is for that reason that I suggest that it would probably have to be a percentage, that is to say, if your freight is Rs. 13

and theirs is Rs. 7. it might be half in each case. I do not know what the figure would be. You will have to get the freight in some relative proportion.

Mr. Simpson.—These rates are based on mileage, and a percentage reduction would affect each company proportionately to its mileage from various markets.

President.—Adjusted in that way it might be difficult to calculate what the burden falling on the taxpayer might ultimately be. Things might get completely upset. One company might cut in and run away with a big order. Have you considered the matter fully? Have you got any definite proposition?

Mr. Simpson.—We have not gone into the matter as far as that, namely the way in which the subsidy should be applied.

Mr. Ginwala.—Let us pursue the point a little further. The President pointed out just now that it may be very unfair to give a sort of bounty to the railways to induce them to reduce the freight. For instance, a man has selected a site for his factory, say, in Bengal. He thinks he is going to capture a particular market. You have built your factory say in the Central Provinces. The Bengal company gets its coal cheaper: it is nearer the coal. You, on the other hand, have the advantage over it in respect of your market in the interior. Supposing you got a bounty on your cement and then you extended your market towards Bengal, that man, who is sitting in Bengal in the hope that by reason of his having cheaper coal will be able to capture a certain market, would lose that advantage.

Mr. Simpson.—Not if the subsidy is based on a mileage basis, the same as the present railway freights are based at so many pies per maund per mile. If the reduction is based on the same principle the man in Bengal would have as much advantage as he has now proportionately.

Mr. Ginwala.—He would not. He may be very near his market, but you have certain advantages in addition to which you will get further advantage in the matter of railway freight, so that you will be in a better position than him. I am only comparing your position with a Bengal company. Supposing you are at a disadvantage as compared with that company in the matter of railway freight alone; then you get subsidised freight. That disadvantage at once disappears.

Mr. Simpson.—The other man gets a proportionate subsidy.

Mr. Ginwala.—My point is this. There are a number of considerations which would induce a man to establish his works in a particular place. Amongst them is the question of the distance. He says to himself "never mind, I will pay a little more for my coal, but I am very near my market." Another man is at a much further distance and his only disadvantage arises from the distance. That man then is unable to compete with the other man. His market is at his door but he gets no advantage by the freight being cheap. I am putting to you an extreme case of hardship. Take the case of the Punjab Cement Company. Their distance may be 100 miles from the Punjab Government. Your distance is a thousand miles. Supposing you get a ⅓rd rebate. They get a rebate on 100 miles whereas you get it on 1,000 miles and you are enabled to compete against them. With your coal, etc., being very near you are very well able to compete against them although their market is very near. They are paying Rs. 20 more for their coal, so that if you get a rebate on freight they are at a disadvantage. That is the complication we have to face. Take the case of coal for instance. Supposing it was a question of giving you a rebate on coal. Coal is a thing which is used by all alike, not only by the cement factories. Would sufficient relief be given by reducing the freight altogether, not subsidising your particular coal? Would not that be a fairer way of dealing with the question?

Mr. Simpson.—On speaking of freight on coal you are putting it from another aspect. That will lead only to a reduction in the cost.

Mr. Ginwala.—Naturally from your point of view: you are sitting near your coal and it makes a very little difference. But in the case of the Punjab it makes a lot of difference. I am asking for your opinion. Would it not be fairer to reduce the freight on coal generally than to give you subsidised freight on your finished product? Mind you, your firm has other industries, I dare say, in which it is interested: you pay a considerable amount of freight on the coal. What is your opinion, taking the whole thing together?

Mr. Simpson.—The answer to that would depend on the extent of the reduction.

Mr. Ginwala.—You say you pay a considerable amount of freight on the coal. It is nearly two-thirds of the price of the coal.

Mr. Boyd.—The freight is nearly 100 per cent. of the price of the coal. Bengal coal is just about 100 per cent.

Mr. Ginwala.—In your case you would benefit very much less than some of the other companies. If the position were reversed and you got subsidised freight on your finished product you would benefit more?

Mr. Simpson.—Yes, proportionately.

Mr. Ginwala.—In the case of reduction of freight on coal it is a thing which affects all industries and it may pay the country to bring down the cost of coal, but it may not necessarily pay the country to give you subsidised freight on your finished product to the same extent.

Mr. Simpson.—I quite follow.

President.—The point is this. After all, as regards the up-country stations, the cement companies enjoy a certain amount of automatic protection owing to the freight the imported cement has to pay. Would there be really a case for subsidising cement except to the big ports? Take Calcutta. How far away from Calcutta is the next comparatively large market for cement? Is there much cement used in the coalfields? Patna took a great deal at the time of the construction of the new capital, but I don't think it will in the near future. Jamshedpur?

Mr. Simpson.—Yes.

President.—It is about 150 miles from Calcutta before you can get a big market, and even at 150 miles the railway freight on imported cement is beginning to count. Would there really be a case for subsidising the transport of cement except to the sea ports?

Mr. Simpson.—And within a radius of 250 miles. For instance, it is possible to import cement to Poona and lay it down cheaper than we can lay down.

President.—Yes. I admit Poona may be a case because you have got to go practically to the seaport. That is rather an exceptional case. But as soon as the new Shahabad factory gets going, it will be in a very strong position between Madras and Poona. It will be about 300 miles from either. One cannot preserve the whole of India for each individual concern. You have got to take what on the whole is the nearest station. What is your impression about the suggestion I have put to you? What it really comes to is this, that it is only to the big ports that the freight on finished goods should be subsidised.

Mr. Simpson.—Yes.

President.—Might it be necessary to include a certain radius round the ports?

Mr. Simpson.—Yes.

Mr. Ginwala.—We are dealing with foreign competition, but what you are really suffering from is not so much foreign competition as internal competition.

Mr. Simpson.—Foreign competition is an important element.

Mr. Ginwala.—Foreign competition chiefly at the ports?

Mr. Simpson.—Yes.

Mr. Ginwala.—But the price of the imported cement has nothing to do with it at present. I mean to say that there is a large difference between the price of foreign cement and the local cement. There is no relation between the foreign price and the price at which you are actually selling.

Mr. Simpson.—But the fact remains that the difference in price is not sufficient to keep the consumers from the imported article.

Mr. Ginwala.—Some of the cement firms have sold at Rs. 40 a ton delivered at Calcutta, while the foreign cement come on at Rs. 60 a ton. There is no relation between the two prices. Supposing we put up the price of foreign cement up to Rs. 100. Still if you are selling at Rs. 50 and the Dwarka Cement Company at Rs. 40 how much better off are you?

Mr. Simpson.—The difference between Rs. 50 and Rs. 60 the price of the imported article is not sufficient to keep it out of the market.

Mr. Ginwala.—A man can get your cement at Rs. 40 whereas he cannot get the other cement below Rs. 100 a ton.

Mr. Simpson.—In many cases he still will not have the cheaper article. He does not take it to the extent he should.

Mr. Ginwala.—The point is this. Even the foreign cement costs Rs. 60 a ton; you are not able to secure more than Rs. 40. Then what is the good of inflating the price so to say?

President.—You won't get a higher price so long as the present competition continues.

Mr. Simpson.—What we do anticipate is that if the imported material can be kept out we will get larger production at lower cost.

President.—But the moment your cost goes down you will be able to cut your price once more.

Mr. Ginwala.—What I am trying to point out is that the foreign price does not affect you at all at present.

Mr. Simpson.—Not practically.

President.—There are apparently certain people, specially in Bengal, who are so determined to have foreign cement that they will have it at any price. That then does not affect you.

Mr. Simpson.—Up to a certain standard. If you make the difference 40 or 45 rupees they would think twice before they take the imported article.

Mr. Ginwala.—The competition amongst the companies in the country is such that it does not matter at all what the price of foreign cement is; you will never get that price. Is there any means by which you can get a higher price than you are getting now apart from everybody else being enabled to sell at this price? Supposing there is no change in the conditions, how are you going to secure that market for yourself? And get the price that you ought to get? That is the point.

Mr. Simpson.—It is a proposition which I cannot answer.

Mr. Ginwala.—You have got to answer it. You have got to help us by answering it. You say that you cannot do without protection. Supposing we give protection, you should be able to get a higher price. Tell us how you are going to get it?

Mr. Simpson.—I do not maintain that we will be able to get a higher price. The protection that we ask for will enable us to lower the cost of production.

Mr. Ginwala.—The other companies also will be able to do that.

Mr. Simpson.—I admit that we are arguing in a vicious circle.

Mr. Ginwala.—Has any attempt been made by cement companies so that each cement company can get at the market for which it is most favourably situated? It is no use all people wanting to compete, say, in the Punjab.

Mr. Simpson.—No.

Mr. Ginwala.—Take the case of the oil companies. They all deny that there is a working arrangement amongst themselves. Still the fact remains that each big company tries to get at the market at a price which is suitable having regard to its own conditions. Why should not the cement companies thus devise some means by which each one of them secures the market which is best suited for it?

Mr. Simpson.—There has been some talk of it. I don't think that anything matured from it.

Mr. Ginwala.—Do you think that that may be a solution?

Mr. Simpson.—At the moment production is very much more than consumption. Whether production can be reduced to equal the consumption is a big proposition. . . . .

President.—It is really closely analogous to what takes place in the case of rubber. The remedy they are trying to apply is to limit production. You cannot do it except by agreement between the different companies.

Mr. Simpson.—Quite so.

Mr. Ginwala.—Supposing you are going to get a better price—this morning I read to you an opinion which says that unless cement is sold at Rs. 27 a ton, you cannot secure a certain market—supposing you are going to get Rs. 60 a ton, the chances of your market expanding are even smaller.

Mr. Simpson.—I quite agree.

Mr. Ginwala.—It is necessary for you not only to reduce your cost of production but also to so market your commodity that you spend less on freight and get more into your own pockets.

Mr. Simpson.—Yes.

Mr. Ginwala.—That is the ideal to be aimed at and I put it to you whether it is not possible for the cement companies themselves to devise such a scheme. That may be a solution.

President.—If there were a regular combine, certain companies would no doubt close down.

Mr. Simpson.—That has been done in England.

Mr. Ginwala.—You have not given us your realised prices anywhere. In question 57 (*ii*) we specifically asked "Please state in respect of those kinds of cement which form the bulk of your output the prices realised by you for the same kinds." You have not answered that question.

Mr. Simpson.—I will send you the figures later.*

Mr. Kale.—In answer to question 66, you appear to state that India is not at a disadvantage in the matter of raising capital. Do you think that there is plenty of capital available? I was under the impression that the rate of interest was higher in India and that there was greater difficulty in raising capital for industries.

Mr. Simpson.—At present, yes.

Mr. Kale.—It has always been the difficulty of our industries?

President.—With the exception of the boom period in 1919-20.

Mr. Kale.—It has been represented to us that there is a great deal of difficulty in getting capital at a reasonable rate of interest.

Mr. Simpson.—I cannot speak with authority of pre-war days, the reason being I was not here. In 1919-20 or 1920-21, it was not so difficult.

Mr. Kale.—In answer to question 68 you say that the cement industry is at a disadvantage on account of the high railway freights on finished goods. Do you mean to say that they are high as compared with what you think they should be, or higher than what they are in western countries, or higher than what your competitors have got to pay?

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* Statement II, Enclosure II.

Mr. Simpson.—I did not prepare the written statement, but I imagine that the impression that it was intended to convey was that these rates were higher than what we think they should be.

Mr. Kale.—Do you think that they are unreasonably high, so far as the management of Indian railways goes, particularly on Indian cement or generally on goods carried by railways?

Mr. Simpson.—I would not like to venture an opinion on that.

Mr. Kale.—Am I to take it that you regard the reduction of railway freight as a measure of protection, is that the idea?

Mr. Simpson.—Yes.

Mr. Kale.—Do you think that they should be lower as a measure of protection?

Mr. Simpson.—They should be low enough to enable us to lay down our material at any destination in competition with imported materials.

Mr. Kale.—Thereby you want to reduce the price at which you can deliver your goods.

Mr. Simpson.—Yes.

President.—What Professor Kale wants to know is this. Do you think that, as an ordinary commercial proposition, the railways ought to reduce the freight on cement, or is it suggested that, as a measure of assistance to the cement trade, Government should come to the rescue with something of the nature of subsidy?

Mr. Simpson.—It is the latter that I am thinking of.

VII.—EQUIPMENT.

President.—About equipment I have got only one or two questions. In answer to Question 77 you say that all renewals in brass, wrought iron or cast iron are made in India. Surely no wrought iron is made in India. No doubt there is imported wrought iron.

Mr. Boyd.—What we meant was that all the renewals made of wrought iron could be got here. That was the impression that was meant to be conveyed.

President.—May I ask where the steel castings come from?

Mr. Boyd.—From Messrs. Krityanand Iron and Steel Works.

Mr. Kale.—In answer to Question 69 you say "This is really a question that is better able to be answered by the Agents." I thought that all your answers were given by the Agents.

Mr. Boyd.—I am afraid I was responsible for that. The questionnaire was sent to me to answer mechanical questions and apparently my replies had not been edited before being sent on to you.

VIII.—CAPITAL ACCOUNT.

President.—Coming now to the Capital Account, in answer to Question 80 you say "Sums set aside for depreciation are greater than the sums which ought to have been set aside.

Amount set aside Rs. 13,35,000-0-0 = 48 per cent.

Due at 10 per cent. Rs. 2,78,200-0-0."

I want to know where the figure of Rs. 2,78,200 came from. According to the figures you have given later on depreciation at income-tax rates is Rs. 2,08,650. Some sort of explanation is wanted. The answer as it stands does not explain itself.

Mr. Simpson.—I will send you the information later.*

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* Statement II, para. 4.

President.—Then in answer to Question 83, you have given us the total amount of authorised and subscribed capital. The only point I want to put there is how much capital has gone into the firebrick part of the concern, or have you excluded the firebrick capital altogether? Could you also let us have a copy of your annual report and balance sheet?

Mr. Simpson.—I will send you that later. *

President.—In answer to Question 87, you say " Average rate of dividend on the Ordinary Shares for the full period is 158½ per cent." It is rather an alarming statement to be made by an applicant for protection.

Mr. Simpson.—It should be 15·85 per cent.

Mr. Ginwala.—Have you given anywhere the present day replacement value of your plant?

Mr. Simpson.—I don't think so.

Mr. Ginwala.—We asked for it in our questionnaire. That is rather more important than you may think at first sight. In calculating the chance of an industry, we cannot really take the value of the plant shown in the books, but we must take the value of a new plant that any man coming into the industry would now have to pay.

President.—The allowance for depreciation, as far as we can see for our purpose, will be calculated on what it costs to replace the plant and not on the original cost. It may be a good deal less, or it may be a good deal more if it is calculated on the amount actually spent by some companies. That is the object of our putting this question to get some sort of idea of what you think it would cost.

Mr. Ginwala.—You have maintained your block value more or less on the same level as your subscribed capital which is not the case in many instances. Now if we were to calculate the amount of overhead charges, depreciation and profit on your block value, I think we should go wrong, should we not, with reference to a person starting cement works now? You purchased your plant at a time when prices were not very high.

Mr. Simpson.—Part of it.

Mr. Ginwala.—You have written off a good deal of your depreciation, and you have maintained your block value at the same level as your authorised capital. Well, it is a satisfactory feature of the business no doubt. If we make our calculations on that and allow for depreciation, profit, etc., on that, don't you think that the new-comer would be placed at a disadvantage? It was for that reason we really wanted to know the replacement value of your plant so that we can make our calculations on whatever it may be.

Mr. Simpson.—I will send you the figures later. †

President.—The total of the dividend on ordinary shares is Rs. 22,80,000 or Rs. 23 lakhs in round figures, and the total of the dividend on deferred shares is about Rs. 14 lakhs. The two together are a little over Rs. 37 lakhs. The total capital is just about Rs. 15 lakhs. So that the dividends are almost 2½ times the capital. That is over a period of 10 years. Divided by 10, it gives you 25 per cent. per annum.

President.—Are these fully paid shares?

Mr. Simpson.—Yes.

Mr. Ginwala.—This is the smallest dividend you have so far paid?

Mr. Simpson.—Yes.

Mr. Ginwala.—On these figures, it is not a case for protection. No country is going to give you protection to get more than 15 per cent. just because in one year you have only been able to get 4 per cent.

Mr. Simpson.—These figures cover the boom period.

Mr. Ginwala.—There was no boom after 1922, at any rate.

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* Not printed.

† Statement II, para. 9.

Mr. Simpson.—No.

President.—This dividend was declared on the result of the year before?

Mr. Simpson.—Yes.

Mr. Ginwala.—1923 result?

Mr. Simpson. It covers 1923-24.

Mr. Ginwala.—Now you are declaring a dividend of Rs. 4?

Mr. Simpson.—Yes.

Mr. Ginwala.—You are not carrying any large sum for reserves?

Mr. Simpson.—We are only carrying a very small sum, Rs. 1,50,000 to depreciation. The whole thing is shown in the balance sheet.

Mr. Ginwala.—Your debenture loan will be repayable very soon?

Mr. Simpson.—Yes.

Mr. Ginwala.—Have you made no provision for its redemption?

Mr. Simpson.—No.

Mr. Ginwala.—What is the ordinary method of financing a loan like that? Do you raise fresh debentures or what?

Mr. Simpson.—It would depend on the position of the Company. If the Company had heavy reserves, it would be paid out of them.

Mr. Ginwala.—Have you mentioned your reserves anywhere?

Mr. Simpson. We have mentioned Rs. 12 lakhs.

Mr. Ginwala.—Do your reserves include your depreciation fund or are they separate?

Mr. Simpson.—I think they are separate.

Mr. Ginwala.—You don't maintain a separate depreciation fund, I take it.

Mr. Simpson.—So far as I know, it is written off against the value of the machinery.

Mr. Ginwala.—There is no depreciation fund?

Mr. Simpson.—No.

Mr. Ginwala.—How do you provide for replacement in that case?

Mr. Simpson.—It comes under repairs and renewals. It is charged as working expenses.

Mr. Ginwala.—So that your working expenses will practically include ordinary depreciation and replacement charges.

President.—If the extra wear and tear of machinery is being made good at the cost of working expenses and is included in the figure you have given for "repairs and maintenance" it is unnecessary to make further provision for depreciation.

Mr. Boyd.—There may be two accounts. We simply charge for the replacement. The actual cost of the machines replaced are not charged by us (the works). They were adjusted in the Bombay office.

Mr. Ginwala.—There are many ways in which you can do it. If you include your depreciation in your works cost, you cannot charge it twice over, by asking for it separately.

Mr. Simpson.—No.

President.—I take it that in the case of any important replacements, it has got to be decided whether it is to be charged to capital or to working expenses?

Mr. Simpson.—Yes.

Mr. Ginwala.—Then in that case it is difficult to find out what you are entitled to by way of depreciation.

Mr. Simpson.—10 per cent. on machinery is not too much.

Mr. Ginwala.—But we must be satisfied that not much of it is included in your works cost, otherwise we shall be allowing it twice over.

Mr. Simpson.—It is only a small amount that is debited.

Mr. Kale.—You have told us in answer to Question 75 that you had to replace one Raw Mill Kominor, after, say, 9 years. Is that the basis on which you say 10 per cent. should be allowed?

Mr. Boyd.—It is based on my own experience as an Engineer.

Mr. Kale.—Could we not take this as a basis also? Is there any special difficulty in the case of the particular mill?

Mr. Boyd.—I think that 10 years is the average life of such a mill. It is a fair life if it is looked after carefully. But cement machinery is so heavy that it has to be looked after very carefully.

Mr. Kale.—This kind of replacement cannot obviously be financed in the ordinary works costs?

Mr. Boyd.—That would come to about Rs. 10,000.

Mr. Kale.—So it must come out of depreciation?

Mr. Boyd.—Yes. That is not charged to works costs.

IX.—COST OF PRODUCTION.

President.—As regards the works cost we have already at various stages referred to two items, raw materials, power and fuel. I notice that your labour cost is very distinctly lower than that given us by any of the other companies. There is always room for a difference in procedure as to what exactly is included under "labour" and the difference may be due purely to that. For instance, the Central Provinces Cement Company gave us Rs. 2¼, Porbunder Rs. 4-8, Gwalior Re. 1·93, Bundi Rs. 4·52, and yours is Re. 1-1. Is there any special reason, so far as your company is concerned, why the labour charges should be very low?

Mr. Boyd.—No.

President.—In the same answer you have given the overhead charges for four years. I am not quite sure that I understand what you mean by overhead charges in that connection. Are you referring to overhead charges you show in your account in connection with the Development Department contract? Is that what you mean? Under the head "works costs" you have given below Table B the overhead charges for four years. What I wanted to find out was what precisely that referred to.

Mr. Simpson.—These overhead charges consist of general charges, advertising, Bombay charges, salaries, interest on debentures and so on.

President.—The reason I put it to you in this particular form was to find out whether these overhead charges are as taken in your contract with the Bombay Development Department.

Mr. Simpson.—No: I think that is different.

President. It is not really much use in that form. I notice that you have not answered Question 92 and I am afraid I do not understand your answer to Question 93. Question 93 is "Do you regard the works costs of the last year for which figures have been given as abnormally high for any other reason? If possible, furnish an estimate of the works cost for some future year on the assumption that (*a*) conditions are normal, (*b*) an output is obtained equivalent to the full capacity of the plant?" The point of that is that it is quite conceivable that, in the case of a particular concern, the figures of a particular year might be misleading because it was abnormal, and what we wanted to know was to what extent the figures you have given for 1923-24 were likely to come down supposing you got the full output, and also supposing any abnormal features such as higher price of coal, etc., disappeared. That is what we asked. If you are not prepared to give an estimate, you might be able to give the present-day cost and say that with the full output you might be able to bring down the price to so much.

Mr. Boyd.—On full output we shall cut down by Rs. 2 a ton and if coal goes down we would come down almost at once by a total of Rs. 4.

President.—You might perhaps think it over and let us have a written reply about that as far as you are prepared to go.

Mr. Boyd.—Yes.*

President.—In your figures for works costs you have not included what all the other factories have done, the cost of bags and packing generally.

Mr. Boyd.—Rs. 8 a ton for packing.

President.—Is that a reasonable figure to take?

Mr. Boyd.—That is as low as we have ever managed to get.

Mr. Ginwala.—May we take that this figure of Rs. 27 includes all the charges except packing, overhead charges and the manufacturer's profits?

President.—In the sense in which we are using "overhead", which includes depreciation, interest on working capital, agent's commission and head office expenses, everything else has got to get into the works costs. Does this figure you have given include everything, or is there anything else that you want to take into account? Have you included your advertising charges? If they are included in your head office charges, well and good. So long as you have got them somewhere it is all right.

Mr. Simpson.—That is included in head office expenses.

Mr. Ginwala.—Are there any other charges that we must add to get at the price that you ought to get. We shall add Rs. 8 for packing charges. Rs. 27 is your works costs. That makes it Rs. 35. Then we have to add overhead charges such as depreciation, interest on working capital, agent's commission, head office expenses. To this we must add again the manufacturer's profits in order to get the price at which you can reasonably afford to sell.

Mr. Simpson.—I do not know exactly the way in which these figures were worked.

Mr. Ginwala.—That is what we exactly want to know. You should be careful and see whether you have omitted anything. We have explained to you what we meant by overhead.

Mr. Kale.—In the works costs—Statement B—ordinary current repairs and maintenance of buildings and machinery is given at Rs. 4-7 in 1923-24. That seems to be a very large increase over the figure of 1922-23 or of 1921-22. Can you account for that abnormal increase?

Mr. Boyd.—A very big overhaul was done in September and with a small output and a very big overhaul the increase naturally has become abnormal.

Mr. Kale.—So that that figure cannot be taken as normal?

Mr. Boyd.—I should think so. From September onwards the output was down.

President.—You have given us the output of the complete year 1923-24 as 55,000 tons. It is higher than the previous two years so that I do not think the output was low.

Mr. Boyd.—For four months it was low.

President.—It would work out very high for four months but not for the whole year.

Mr. Ginwala.—There must be a big item of about Rs. 1 lakh in that.

President.—It is quite obvious that you have made some regular overhaul.

Mr. Boyd.—Yes. A big overhaul was done between September 1923 and March 1924.

Mr. Kale.—How do you provide your working capital? Is it out of what you save by way of depreciation?

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* Statement II, para. 5.

Mr. Simpson.—Mostly from our reserve.

Mr. Kale.—That is out of Rs. 12,00,000.

Mr. Simpson.—Yes.

XI.—CLAIM FOR PROTECTION.

President.—In your last answer to Question 122 you say that the exclusion of foreign cement will increase production and therefore cheapen the cost of manufacture, thus enabling the companies to sell at a lower price, which will tend to promote the use of cement in India and further increase production. Do you mean lower price than what you are selling at present? I wanted to draw your attention to it as I was rather touched to notice the words "lower price."

As regards the claim to protection generally, I think the most important point for the Company to meet, if they can, is the question of what probability is that the industry could eventually hold its own without protection. You cannot on the basis of the present works costs. There is no reason to suppose that apart from a world upheaval, the price of imported cement is likely to rise very seriously. On that basis somehow or other you have got to get cement to Calcutta at somewhere about Rs. 50 a ton. If there were no duty at all, you might have to go down to Rs. 45 or an even lower price. With the present railway freight, the cost of fuel and packing, overhead and all these things there is very little margin left. Suppose we took Rs. 50 a ton as the price which you are likely to obtain at the ports. After examination of the figures we had from some of the other companies, I do not think it is possible to bring the overhead and the manufacturer's profit much below Rs. 15 a ton. You have then got to add freight and packing charges which may be taken at Rs. 12 and Rs. 8-1. Coal and fuel are not likely to go below Rs. 10. That brings the total to Rs. 45, and you have got only Rs. 5 left for all other charges. On that basis the difficulty is to see how the industry is eventually going to hold its own without protection. It could hold its own up-country unquestionably. But it is a little difficult to see from the cost figures presented by the cement companies how it can hold its own at the ports. I do not want to press you to answer this question just now, but it is important that we should hear anything you can urge in that connection.

Mr. Simpson.—We shall think it over.

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Witness No. 9.

THE JUBBULPORE PORTLAND CEMENT COMPANY, LIMITED.

(Agents.—Messrs. C. Macdonald & Co.)

A.—WRITTEN.

Statement I.—Replies to questionnaire, (1) (*a*) *received from the Jubbulpore Portland Cement Company, Limited, under cover of letter, dated the 12th July 1924, from Messrs. Macdonald & Co., Managing Agents.*

With further reference to your letter No. 398 of 21st May and wire of 9th instant, we have now the honour to enclose herewith our replies to the questionnaire regarding protection to the cement industry. We regret it will be impossible for us to send a representative to Simla as our manager leaves for England on the 15th current for reasons of health.

We trust, however, that the oral evidence of the representatives of the other cement companies will be sufficient for your purpose.

REPLIES TO QUESTIONNAIRE.

I. INTRODUCTORY.

1. The Jubbulpore Portland Cement Company, Limited, was floated in May 1920 and is a public company.

2. All the capital invested is held by Indians with the exception of about ⅛th. Directors are all Indians. The superior management (Agents) is composed of Indians.

3. Our Company manufactures Portland cement only.

4. The factory commenced working during December 1923. *

5. The total capacity of the factory is 5,000 tons cement per month.

(*a*) We manufacture Portland cement only.

6. The output for the year 1923 was 20,887 tons.

7. Our factory is situated at Mehgaon about 6½ miles from Jukehi Station on the E. I. Railway to which it is connected by a siding.

(*a*) Yes.

(*b*) No.

(*c*) Yes.

(*d*) Good supply of labour.

The most important factors in selecting a site are: The supply of raw materials, labour, fuel, water and vicinity of markets.

8. We manufacture Portland cement only.

Refer to answer to Question No. 6.

9. We manufacture to the British Standard Specification which, however, might be modified and this is now under consideration by the Institute of Engineers, India.

10. We consider our cement equal in quality and appearance to any imported cement. Indian cement does not command the same price as English cement. The reason being prejudice on the part of some consumers, but this prejudice we are gradually wearing down.

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* Should be 1922, see oral evidence.

II. RAW MATERIALS.

11. The raw materials used are limestone and clay. Only a small proportion of clay.

12. Our annual requirements of raw materials are :—

(*a*) About 32,000 tons.

(*b*) About 90,000 tons.

13. About 160 tons of raw material will make 100 tons of clinker or cement. The wastage is in calcining.

14. Answered in No. 13.

15. One ton of clinker will produce one ton of cement.

16. The raw material supplies are about 400 yards from the factory.

17. Raw materials are collected by hand and transported to the factory in small tip wagons.

18. Royalty is fixed at Rs. 40 per year per acre for the area used for mining operations and Rs. 5 per acre for area held in reserve.

19. (1) Royalty as above.

(2) Labour, limestone Re. 0-12-6 to Re. 1 per ton, clay Re. 0-4-0 per ton.

(3) Freight Re. 0-5-0 per ton.

20. Terms of concession, see answer No. 18. We consider the terms favourable.

21. We have found the raw material uniform in quality.

22. No.

23. The supply is almost unlimited.

(*a*) }
(*b*) } A small increase is probable.

24. No.

25. No.

26. No.

III. LABOUR.

A.—Quarry Labour.

28. Quarrying is done by contract and the number of men varies.

29. No.

30. The labour is indigenous and is generally sufficient.

31. No.

B.—Factory Labour.

32. Yes. The process of manufacture requires expert supervision involving skilled labour imported from abroad.

33. Imported labour comprises:—One General Manager, one Chemist, one Electrician, one Power House Engineer. No increase if factory worked to full capacity.

34. Indian labour has been trained to run the cement mill. Every facility is given to Indian workmen to take the place of imported labour and apprentices are being trained.

35. About 25 per cent. larger.

36. Labour employed (factory) 1923	110,746
Labour employed (factory) 1924 up to May . .	36,178

Average rate per day—1923 Fitters Re. 1-4-10 and coolies Re. 0-7-9.

Average rate per day—1924 Fitters Re. 1-4-3½ and coolies Re. 0-7-3½.

37. (*a*) 1923—Rs. 1,05,255-8-0, 1924 (up to May) Rs. 27,595-13-3.

(*b*) Please refer remarks in Question 36.

38. Indian labour force is sufficient and is drawn from all parts of India.

39. Indian labour improves with training but at present is not so efficient as that of workmen in western countries.

40. Good housing accommodation, school, club, etc.

IV. POWER (INCLUDING FUEL).

41. All machinery electrically driven.

42. Steam turbine, cost per unit 0·9 as. fair.

43. Coal.

44. 6·37 lbs. coal per unit.

45. Coal per ton at site { Burhar coal, Rs. 10 to Rs. 10-8 (average).
{ Bengal coal, Rs. 18 to Rs. 23 (average).

46. No.

47. No.

V. MARKETS.

48. Indian cement manufacture.

	Tons.
1921	128,827
1922	148,824
1923	217,305

49. About 250,000.

51. Principal markets are on the east side of India.

52. We can compete more easily with foreign cement in the up-country towns.

53. We do not consider the export of cement to foreign countries probable.

54. The cement manufactured by us is purchased by Government, Railways and Municipalities.

Year.	Government.	Municipalities.	Railways.	Rate per ton during the year.
	Tons cwt.	Tons cwt.	Tons cwt.	
1923	10,649 9	2,623 15	1,280 11	From Rs 40 to 60.
1924	1,919 5	1,228 10	82 6	From Rs. 30 to 60.
	12,568 14	3,852 5	1,362 17	

VI. FOREIGN COMPETITION.

55. England, Germany and Belgium.

56. Only one kind of cement affects us, *viz.*, Portland cement.

57. We only manufacture Portland cement.

(*i*) The price at which imported cement entered the country and was sold—

(*a*) 1912	Rs. 45 per ton.
1913	Rs. 48 per ton.

1914	Rs. 60 per ton.
(b) 1917 and 1918	Rs. 125 to Rs. 225 per ton.
(c) 1921-22 varied considerably.	
1922-23	Rs. 80 per ton.
1923-24	Rs. 60 per ton.

58. The information is obtained from actual suppliers.

61. Foreign competition is keenest at the ports.

63. Freight from England to Bombay is 17/6 per ton at 1/4=Rs. 13-2-0 while the freight from our factory to Bombay is Rs. 15-8-0, and England to Poona, Rs. 17-6-3, against factory to Poona, Rs. 18-14-0. The Cement Companies would be materially assisted if railway freights could be reduced.

65. We have no evidence of Continental cement having been re-exported from the United Kingdom.

66. As compared with foreign manufacturers the Indian manufacturer is at a disadvantage in the case of (*a*), (*b*), (*c*), (*e*), (*f*), (*g*).

67. Most of the disadvantages are permanent but (*c*) may not be later on.

68. The Cement Industry is at a disadvantage on account of the distance from source of fuel and high railway freights.

VII. EQUIPMENT.

69. Yes. Can only be operated economically if the full output is produced.

70. Yes.

71. Of a capital of Rs. 32,00,000. Rs. 33,78,000 have been expended on machinery.

72. Crushing plant consists of 1 No. 6 gyratory crusher and 1 set of rolls for crushing stone also 1 set of small rolls for breaking clay.

Raw mills has one Allis Chalmer compeb mill 7 feet diameter and 22 feet long. Kiln is 9 × 200 feet capacity 170 tons per day, Clinker cooler is 8 × 60 feet. Cement mill has small jaw crusher for gypsum and 7 × 22 compeb mill similar to raw mill. Coal mill has jaw crusher, coal dryer and 5 × 22 compeb mill. These compeb mills are of recent development having been introduced about seven years ago.

Power House consists of two 1,000 K. W. Allis Chalmer turbines and one 100 K. W. and three B. & W. Boilers.

73. With the exception of waste heat boilers this plant is absolutely up-to-date.

74. Yes.

76. No.

77. None except small castings.

VIII. CAPITAL ACCOUNTS.

78. Leases and concessions—

	Rs.	A.	P.
Lands	3,516	8	3
Buildings	16,45,505	1	8
Plant and machinery	33,94,136	11	2
Other miscellaneous assets	6,08,227	14	9

79. The figures given in answer to Question 78 represent the actual cost. No depreciation fund has been opened.

80. No amount set aside for depreciation.

81. Cannot say.

82.

Year.	Amount in Sterling.			Amount in Rupees.			Rate of exchange.
	£	s.	d.	Rs.	A.	P.	
1920	5,500	0	0	58,994	6	6	@ 1—$10\frac{3}{8}$.
1921 . . .	1,46,901	3	1	22,57,511	3	0	Between 1—$3\frac{1}{16}$ and 1—$5\frac{7}{16}$.
1922	3,365	3	6	51,873	13	3	Between 1—$3\frac{5}{8}$ and 1—$3\frac{21}{32}$.
1923	60	0	0	869	7	0	@ 1—$4\frac{9}{16}$.
1924	*Nil.*			*Nil.*			
	1,55,826	6	7	23,69,248	13	9	

Amount in Dollars.

	$	Rs.	A.	P.	
1920 .	50,000.00	1,79,000	0	0	@ Rs. 358 per 100 $.
1921 .	545·42	2,012	9	9	@ Rs. 369 per 100 $.
1922 .	13,203·49	45,385	0	6	Between Rs. 340 & Rs. 364 per 100$.
1923 .	20,629·36	67,203	5	9	% Rs. 328 & Rs. 335 per 100 $.
1924 .	8,067·20	26,960	8	3	% Rs. 332 & Rs. 338 per 100 $.
	92,445·47	3,20,561	8	3	

	Rs.	A.	P.	
83. Authorised	50,00,000	0	0	All Ordinary Shares.
Subscribed	32,00,000	0	0	
Paid up	31,44,900	0	0	

84. No Preference Shares issued.

85. No Deferred Shares issued.

86A. The amount of the Paid Up Share Capital is as under :—

	Rs.	A.	P.
1921	15,60,555	0	0
1922	31,01,900	0	0
1923	31,42,900	0	0
1924	31,44,900	0	0

86B. No Dividend declared.

86C. *Nil.*

87. *Nil.*

88. Rs. 16,00,000 at 8½ per cent. interest issued on 1st January 1922, repayable on 1st January 1929. No Debenture Sinking Fund.

89. No Reserve Fund.

90. Cannot say.

FORM I.

Statement showing total expenditure incurred on the production of cement during certain years.

—	First year of production.	1921-22.	1922-23 from 1st January 1923 to 31st March 1923.			1923-1924.		
			Rs.	A.	P.	Rs.	A.	P.
(1) Raw materials	..	..	13,140	2	0	81,906	1	3
(2) Factory labour	..	..	16,223	12	3	45,519	0	0
(3) Power and fuel	..	..	1,23,612	12	3	5,18,042	15	10
(4) Ordinary current repairs and maintenance of buildings, plant and machinery.	..	..	7,570	9	9	42,444	1	10
(5) General services, supervision and local office charges	..	..	27,188	9	3	1,31,422	10	11
(6) Miscellaneous, *e.g.*, rent, Municipal taxes, insurance, etc.	..	..	3,766	2	0	15,333	0	9
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.	..	..	..			..		
	..	..	1,91,501	15	6	8,34,667	14	7
Total production of cement for the year.	..	..	3,095	0	0	26,120	0	0

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FORM II.

Statement showing the Works cost per ton of cement.

—	First year of production.	1921-22.	1922-23 from 1st January 1923 to 31st March 1923.	1923-24.
			Rs. A. P.	Rs. A. P.
(1) Raw materials	..	..	4 3 11	3 2 2
(2) Factory labour	..	..	5 3 10½	1 11 10½
(3) Power and fuel	..	..	39 15 0	19 13 4
(4) Ordinary current repairs and maintenance of buildings, plant and machinery.	..	..	2 7 1½	1 10 0
(5) General services, supervision and local office charges.	..	..	8 12 6½	5 0 6
(6) Miscellaneous, *e.g.*, rent, Municipal taxes, insurance, etc.	..	..	1 3 5½	0 9 4½
(7) Any other single item not enumerated above which amounts to 5 per cent. or more of the total expenditure.	..	..	..	..
	..	..	61 13 11	31 15 3
Bombay Office overhead charges (from 1st January 1923 to 31st March 1923, 3 months).	..	..	69,963 11 2	..
Bombay Office overhead charges (from 1st April 1923 to 31st March 1924, 1 year).	..	..	..	3,91,371 3 8

94. We have adopted a system of cost accounting. Copies not available as only one copy on file.

96. Rates of Depreciation allowed by income-tax are 7½ per cent. on machinery and 2½ per cent. on buildings.

97.

	Cost to 31st March 1924.	Depreciation @ 2½ per cent.	Depreciation @ 5 per cent.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Buildings . .	16,49,021 9 11	41,225 8 8	82,451 1 4
	Cost to 31st March 1924.	Depreciation @ 7½ per cent.	Depreciation @ 10 per cent.
Machinery .	33,94,136 11 2	2,54,560 4 3	3,39,413 10 9

101. It is necessary to borrow.

102. Copy of Balance Sheet shows this and will be sent you in a few days when printed.

104. About Rs. 1,20,000.

105. Yes, about 5,000 tons.

106. The Company has a Head Office. It is under control of the Managing Agents.

107. (*a*) The annual amount of the Head Office expenses, Rs. 71,676-14-5.

(*b*) Agents' commission, Rs. 25,000. This was given up each year.

108. 10 per cent. on net profit or Rs. 25,000 minimum.

109. (A) The cost of Head Office expenses per ton, Rs. 2-12-1.

(B) Agents' commission per ton of cement, Re. 0-15-4.

The above on the basis of the present output.

The above two on the basis of full capacity output, *i.e.*, 60,000 tons per year as follows:—

(*a*) Cost of Head Office expenses per ton, Re. 1-3-1.

(*b*) Agents' commission per ton, Re. 0-6-8.

XI. CLAIM FOR PROTECTION.

114. A. Yes.

B. Without the help of protection we consider the industry will not develop so rapidly as is desirable in the interests of the country.

C. By promoting the use of cement in India we believe the industry will eventually be able to face foreign competition without protection.

The knowledge of the uses of cement in this country is comparatively small and when the people understand its advantages the consumption will increase.

115. (*a*), (*b*) Yes.

116. Yes. During the war the industry was controlled by the Munitions Board.

117. Answered in No. 114.

118. We ask for protective duty on Portland cement only.

120. The present duty is Rs. 9 per ton.

121. We consider a duty of Rs. 25 per ton necessary. We do not consider a lower duty would tend to induce people to buy Indian cement.

122. It is a fact that the productive capacity of Indian cement factories at present exceeds the total consumption of the country but the exclusion of foreign cement will increase production and therefore cheapen the cost of manufacture, thus enabling the Companies to sell at a lower price which will tend to promote the use of cement in India and further increase production.

We believe as the Indians become more conversant with the advantages of Portland cement consumption will increase, but that will take time.

Statement II.—Supplementary information submitted by the Jubbulpore Portland Cement Company, Limited, with their letter dated 23rd October 1924.

We have the honour to acknowledge receipt of your letter No. 1097 of the 22nd instant.

(1) The answer to Question 18 should now please be revised to read as follows:—

The rent is fixed at Rs. 40 per acre per annum for the area used for mining operations, with a minimum of Rs. 500 in any half-year, irrespective of area actually used for mining operations, and Rs. 5 per acre per annum for the area held in reserve.

(2) It is not quite clear from this question, what information the Board require. Our authorised capital is Rs. 50,00,000 of which Rs. 32,00,000 have been issued. Additional monies have been raised by means of debentures (Rs. 16,00,000) and loans (Rs. 25,94,357). The expenditure on machinery amounts to Rs. 33,94,136, and our total block account is Rs. 58,51,386.

If further information is required we shall be glad if the Board will please amplify this question, so as to show exactly what information is required and the matter will receive our immediate attention.

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Statement III.—Further statement submitted by the Jubbulpore Portland Cement Company. (Letter, dated 9th October 1924.)

We have the honour to acknowledge receipt of your letter No. 843 of the 13/15th ultimo, and as requested we beg to return herewith the record of evidence duly corrected as far as possible and we shall be obliged if you will kindly let us have two copies of the corrected transcript for this office record.

* * * * * *

As requested we enclose herewith three copies of our Balance Sheets and also a statement showing the quantities of cement railed from our Works during the last two years to Calcutta, Bombay, and to other destinations which have taken 5 per cent. of our output or more, and a final figure showing railments to all other destinations.*

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*Not printed.

Statement IV.—Further supplementary information submitted by the Jubbulpore Portland Cement Company, Limited, dated the 2nd February 1925.

We beg to acknowledge receipt of your telegram of the 31st ultimo to which we wired to-day reading as follows:—

> " Your telegram thirty-first. Jubbulpore output twenty-nine thousand and seventy-eight tons. Jubbulpore sales twenty-seven thousand five hundred and fifty-eight tons two cwts."

All the above figures are for the calendar year 1924.

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THE JUBBULPORE PORTLAND CEMENT COMPANY.

B.—ORAL.

Evidence of Mr. J. BOYD, Mr. E. C. W. SIMPSON AND Mr. M. M. LUDLOW, recorded at Bombay on the 11th September 1924.

Mr. Ginwala.—Why did you start the Jubbulpore Works at a time when prices were not as favourable as they might be?

Mr. Boyd.—They were in a way favourable.

Mr. Ginwala.—You have been working it for one year only. A year ago at any rate it was considered that circumstances were favourable.

Mr. Ludlow.—The company was started in 1920 and we started operations in 1922 practically.

Mr. Ginwala.—It is very near your Katni Works?

Mr. Simpson.—Yes.

Mr. Ginwala.—There is another cement company in the neighbourhood?

Mr. Simpson.—It was floated later, I think.

Mr. Ginwala.—About the same time. On the one hand you claim protection; on the other hand you go and locate yourselves in a place where there is another company and you have got a company of your own. I want to know the reason for it.

Mr. Simpson.—I could not tell you the factors that influenced the Directors' mind at that time.

Mr. Ginwala.—It seems to me that you have there three of the most important factories in India in a very small radius. The consequence is that more or less you have got to compete in the same markets, and it seems to me that it is rather a defect in the organisation of the business. You are business people and there must be some special reason why you started works in a place where you yourselves had a factory already.

Mr. Simpson.—I take it that there was a big demand for cement at high prices when the company was floated which they presumed would continue, but which did not continue.

President.—The demand has not only continued but it has increased, but the people who went to supply the demand have also increased, and with much greater rapidity.

Mr. Boyd.—I think for some reason or other people got crazy over cement. I know that three projects were thought of in this same district but they never materialised. I am not talking of the investment stage.

Mr. Ginwala.—It is lucky for you that they did not start.

President.—In answer to Question 18 you say "the royalty is fixed at Rs. 40 per year per acre for the area used for mining operations." What would be the area under mining operations at any time?

Mr. Ludlow.—Under actual operation not more than three or four acres. I should say 5 acres.

President.—So that the royalty is very low indeed: it would work out to a very low figure?

Mr. Boyd.—I think the new lease is rather on the basis of so much a ton taken out and a certain dead rent for the area not quarried.

President.—The answers given do not fully cover that. It will perhaps be better if you will send in a revised answer. It is not a matter of great importance but it is advisable to have it corrected.*

In answer to Question 45 you have given the cost of coal at site. For practical purposes may we take it as the cost of coal ultimately for both Katni and Jubbulpore? They are very near each other and the difference is hardly worth worrying about.

Mr. Boyd.—Yes.

President.—Question 71 was "What percentage of your total capital outlay has been incurred on plant and machinery?" You say that of a capital of Rs. 32 lakhs, Rs. 33,78,000 have been expended on machinery. You must have borrowed a bit! I think your share capital is Rs. 32 lakhs. The question is what proportion of that is the value of the block? You had better give us that figure.

Mr. Ludlow.—Yes.†

President.—You have not taken the cost for a full month when you were working at full capacity?

Mr. Ludlow.—No. We have never worked to our full capacity for one month.

President.—You have been working for so short time that it is difficult to ask you anything about works costs.

Mr. Ludlow.—Yes.

President.—In answer to Question 121 you say "We consider a duty of Rs. 25 per ton necessary. We do not consider a lower duty would tend to induce people to buy Indian cement." What part of India have you got in view? Are you thinking of Calcutta and Bombay or are you going further to Rangoon and Madras and so forth?

Mr. Simpson.—All sea ports.

President.—My difficulty about Madras is this, that, as soon as the Shahabad factory is opened, it will be able to cut out the other Indian firms.

Mr. Simpson.—After a time.

President.—It all depends on how much of their coal they are going to get from Bengal and how much from Singereni. They have got half their coal near and they would not be so badly off. In the case of Rangoon it is just a question whether it is reasonable to arrange a scheme of protective duties to enable India to exploit Burma so to speak.

Mr. Boyd.—There was talk of putting up cement works somewhere near Rangoon.

Mr. Ginwala.—There was a talk but it never developed into anything. Their coal is too far off.

Mr. Boyd.—It costs only Rs. 7-8 a ton to take coal from Calcutta to Rangoon.

President.—If the duty of Rs. 25 a ton is proposed in order to enable the Indian companies not only to cover Calcutta and Bombay but also Burma, then I think there is a difficulty there. As far as Madras is concerned such a high rate of duty is not necessary, because as I said the Shahabad factory is more favourably situated. Karachi can be supplied from the two Kathiawad factories.

Mr. Simpson.—Suppose the people of Madras, as is usually the case, do not take kindly to new brand of cement.

President.—One has got to take it on the basis that Madras is to be supplied from a place which is near it and not from places which are 1,000 miles away.

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* Statement II (1).

† Statement II (2).

Mr. Simpson.—Yes.

President.—I notice from the figures that we have drawn out of the imports of cement that the most important imports are to Bengal, Bombay, Madras and Sind. The most important market to capture if you can is Calcutta. That is what the figures show as far as I can judge.

Mr. Boyd.—Yes.

Witness No. 10.

SOUTH INDIA INDUSTRIALS LIMITED, MADRAS.

WRITTEN.

Statement I.—Replies to questionnaire (1) (a) from the South India Industrials Limited, dated 11th July 1924.

We are submitting herewith our answers to your questionnaire relating to protection of the Cement Industry and are sending by separate post statistics connected with it. We have answered the questionnaire to the best of our knowledge and ability and trust the answers will be of use. The delay in the submission of our reply is due to our having had to delve into old records for certain information. Will you kindly let us know where you will be taking oral evidence next, and when, to enable us to send our representative. We understand that expenses in this connection will be borne by Government.

ANSWERS TO QUESTIONNAIRE ON THE CEMENT INDUSTRY.

The Madras Portland Cement Works—The South India Industrials Limited.

1. INTRODUCTORY.

1. Established 1879. Public Registered Company.

2. The whole of the capital invested is held by Indians. All Directors are Indians. Two of the Directors form part of the superior management.

3. Besides cement, lime and cement concrete pipes are manufactured.

4. 1904.

5. Full capacity of the factory as at present equipped:—

(*a*) 30 tons cement per day.

(*b*) 100 cement concrete pipes per day.

6.

Cement, 3 years' output available.

	Tons.	Pipes.
1920-21	4,931	3,573
1921-22	3,985	3,618
1922-23	2,720	3,820

7. Cochrane Basin Road, Washermanpet, about a mile from Salt Cotaurs and 1½ miles from Royapuram. By the side of the Buckingham Canal.

(*a*) Yes (in respect of clay).

(*b*) No.

(*c*) Yes, within the limit of Madras.

(*d*) An abundant supply of labour is available. The most important factors in selecting site for cement factory in our opinion are that the factory should be situated as near as possible to the supply of raw materials so that the freight and other charges are only borne on the finished goods as it necessarily follows if raw materials have to be carted great distances to the factory and then manufactured and the finished product transported again into the market the cost of production will naturally be high.

8. No.

9. Yes. All cement is manufactured to British standard specification and invariably our tests show higher results. The British standard specification is quite suitable to Indian conditions and we do not think it should be in any way modified as it is most desirable that a uniform standard for cement is made universal.

10. Our cement is quite equal in quality and appearance to imported cement. Being an Indian product it does not command the same price in competitive markets, this being mainly due, we think, to prejudice.

II. RAW MATERIALS.

11. Raw shells, clay, coal, gypsum, sand, coaldust and pebbles.

		Tons.				
12.	(a) Raw Shells	3,566	0	0	0	Annual requirement according to present rate of output.
	Clay	594	4	0	0	
	Coal	1,293	17	2	0	
	Gypsum	144	5	0	0	
	Sand	190	7	0	0	
	Coaldust	317	5	0	0	
	Firewood	15	17	2	0	
	Pebbles	30	0	0	0	
	(b) Raw Shells	10,468	19	2	16	Annual requirement according to the rate of output equivalent to the full capacity of the plant.
	Clay	2,455	18	2	8	
	Sand	305	2	0	24	
	Coal	2,921	6	0	8	
	Gypsum	262	0	1	12	
	Coaldust	1,024	12	0	16	
	Firewood	26	0	0	0	
	Pebbles	30	0	0	0	
13	Raw Shells	1	3	3	17	Quantity of raw materials required for the production of one ton of cement.
	Clay	0	5	2	22	
	Sand	0	0	2	22	
	Coal	0	6	2	19	
	Gypsum	0	0	2	11	
	Coaldust	0	2	1	10	
	Firewood	0	10	0	20	
	Pebbles	0	0	0	8	

Percentage of wastage.

Before calcining	5 per cent.
During ,,	33⅓ per cent.
After ,,	*Nil.*

14. 1½ tons raw metal to produce one ton of clinker.

15. 19⅖ cwts. clinker and ⅗ cwts. gypsum produce one ton of cement.

16. Raw shells from Irukkam and Changelpaliam Quarries (near Pulicat lake) about 45 miles from Madras through back waters.

Clay in the factory premises.

Coal from Bengal.

Gypsum from Trichy 255 miles.

Sand, three miles from factory.

Dustcoal from Bengal.

Firewood from local market.

Pebbles from 45 miles.

17. Raw shells by boat. Coal by rail to siding one mile from the factory, then carted. Gypsum by rail to Madras and carted for 3 miles. Sand by bullock cart. Pebbles by rail to siding.

18. According to our lease we are allowed to excavate 8,000 tons of raw shells per year and on anything in excess of this a royalty of Re. 1 per ton is payable to Government.

19. (1) Royalty (see answer to Question No. 18).

(2) Labour varies. Present excavation Rs. 55 a garee.

(3) Freight from quarry to Factory by river. We possess our own boats for the transportation of shells. Company's boatment Rs. 30 a garee and hired boats Rs. 50 a garee.

(4) Kist, Canal cutting, etc., for the current year Rs. 25 a garee.

20. A running lease has been given to us for the last six years without the quarries being sold in public auction. This is the only advantage we derive

21. Raw materials are fairly constant.

22. No deficiency. Rather the raw shellac are too pure for the purpose.

23. Previously we have been obtaining a lease for the shell pit areas for 3 years and for the present we have been granted lease* for 6 months, but generally we have considerable difficulty in getting these renewals.

24. No.

25. This has already been answered in No. 23.

26. No.

27. We are at a disadvantage in respect of freight on coal by rail.

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III. LABOUR.

A.—*Quarry Labour.*

28. 100 men.

(*a*) We work not by wages but by piecework and we settle their accounts periodically at Rs. 55 per garee of shells.

(*b*) We do not pay wages per head, but it is contract labour.

29. No.

30 Indigenous.

31. No.

B.—*Factory Labour.*

32. When first started imported labour was necessary and to a certain extent. We still think it is now necessary, although our works are carried out by men who have been trained under imported supervision.

33. None at present.

34. Our answer to Question No. 32 covers this.

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* Attached.

35. We are unable to say.

36. 253 workmen.

The average rates of wages of different classes:—

Skilled labour.

	Average rate per day. Rs.	A.	P.
Motor Drivers	0	15	11
Firemen	1	0	0
Greasers	0	12	3
Fitters	0	14	11
Turners	0	13	6
Rivetters	0	12	11
Blacksmiths	1	7	4
Moulder	1	7	4
Carpenter	1	6	6
Bricklayer	1	3	2
Chemical Department	0	12	3
Mill Department Millers	1	2	3
Serang Department	1	0	11
Fitting Shop	0	13	7
Electric Department	0	13	0
Painter	1	2	0
Pipe makers	0	10	4
Mill Supervisors	1	7	3
Shell Department	0	11	3

Unskilled labour.

	Rs.	A.	P.
Female cooly, Shell Department	0	6	2
Male, Shell Department	0	9	0
Female, Clay Department	0	6	2
Male, Clay Department	0	10	2
Female, Warehouse	0	6	9
Male, Warehouse	0	10	9
Female, General	0	6	2
Male, General	0	9	0
Female, Pipe	0	6	2
Male, Coal	0	9	0
Male, Loading	0	9	6
Watching Department	15	0	0
Senior Watchman	20	0	0
Serang cooly	0	11	6
Mill cooly	0	9	6

37. (*a*)

	Rs.	A.	P.
1920-21	61,543	3	1
1921-22	58,745	5	3
1922-23	57,916	11	7

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(*b*) Department.

	1920-21.			1921-22.			1922-23.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Motor Drivers	43	10	6	43	12	5	42	13	2
Fireman	29	14	8	28	10	3	27	6	9
Greasers	22	11	2	21	11	10	22	8	1
Fitters	28	10	8	25	4	1	26	0	2
Turners	14	12	6	15	10	9	13	3	5
Rivetters	22	3	6	18	11	10	20	5	5
Blacksmith	29	10	3	27	14	11	28	0	5
Moulder	34	14	6	32	3	3	33	14	9
Carpenter	28	1	3	26	10	3	28	0	6
Bricklayer	26	14	0	22	0	0	28	11	0
Chemical Department	34	10	6	33	2	9	31	1	3
Mill Department Miller	30	10	4	26	0	11	27	2	6
Serang Department	28	6	11	26	10	3	28	11	10
Fitting Shop	24	13	3	24	0	9	23	3	7
Electric Department (Sub-Station)							21	8	0
Painter	18	10	0	22	0	0	24	12	0
Pipe makers	21	4	0	20	3	11	24	1	5
Mill Supervisor	51	0	9	48	3	6	53	15	2
Shell Department	15	2	6	12	13	11	13	4	8

38. Sufficient labour is available in the vicinity of the Factory.

39. The Indian labour improves with training. Cannot say.

40. As they are living in the vicinity of Factory no arrangements are necessary; they are given 12½ per cent. allowance of their pay.

IV. POWER (INCLUDING FUEL).

41. We use electric power.

42. High tension current at 5,000 volts, 3 phase, 50 cycles is supplied by the Madras Electric Supply Corporation which is converted by us to 450 Volts D. C. The cost of the current is as follows:—

For the first 21666 units consumed As. 2 per unit.

For the next 25000 9 pies per unit.

All above, 6 pies per unit.

The cost of current is abnormally high and for the same quantity we consume it should be possible for us to get it at about half the present rates charged us. The average cost is approximately 1·38 annas per unit.

43. No.

44. On the present output 199 units per ton of cement. This consumption would vary very little if the factory was producing to its full capacity which will naturally reduce the units per ton of cement manufactured.

45. We use coal only for rotary kiln burning. We buy coal from 1,000 miles off. The price of coal per ton delivered at the factory is Rs. 27 which is exorbitant.

46. No.

47. No.

V. MARKET.

48. We are not in a position to obtain this datum.

49. 350/400,000 tons.

50. Yes. Once the Indians see the advantage of reinforcement concrete building work the demand should be up in leaps and bounds.

51. Madras Presidency, Mysore, Hyderabad, Travancore and allied Native States.

52. We find it extremely difficult to compete against foreign manufacturers in the local market without having to go further afield.

53. Considering the vast supplies of raw materials available in India for the manufacture of cement, there is no doubt in the near future India should be able to export her own manufactured cement. We have had enquiries from Australia and Tasmania but owing to abnormal high rates of shipping freights are unable to compete in price.

54. Government and Public Works Department, Madras Port were buying our cement during the war and up to April 1923. Now they do not buy our cement owing to the competition of foreign cement; with regard to public bodies the Port Trust also bought up to April 1923 but for the same cause they had stopped buying.

Prices received by us during the war were less than market prices then prevailing.

VI. FOREIGN COMPETITION.

55. Great Britain, Belgium, Germany and Italy.

56. Hand Brand and Associated Portland cements.

57. Cannot say.

58. From the Customs authorities who should be able to give invoice price of cement imported. From the daily report of exports and imports supplied by the Customs we think the figures if taken are reliable.

59. Quotations in Trade Journals cannot in any way be relied upon nor could an approximate percentage be given as to what percentage the quoted price should be reduced.

60. We do not know.

61. Madras, Bombay, Calcutta, Karachi and Rangoon, so far as we know.

62. Quantity of cement produced will naturally lower the cost and the majority of foreign cement manufacturers put down large enough plants to enable them to reduce their production cost to a minimum. This should only be permanent until larger plants are erected in India to bring down the production cost.

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63. We are unable to give these figures just at the present moment.

64. Not known.

65. No.

66. (*a*) The cost of the plant and machinery will be higher in India by the amount of freight and duty.

(*b*) Not in our case.

(*c*) No.

(*d*) We find the cost of collection and transportation of raw materials into Works at present to be very high.

(*e*) Cost of production is not high but it is transportation which increases the cost.

(*f*) Really freights are abnormally high.

(*g*) No difficulty is incurred or is felt in maintaining stocks of spare parts

(*h*) No.

(*i*) No.

The approximate cost of to-day to erect a capable plant for an output of 63 tons of cement per day complete ready to work will be about 5¼ lakhs This price is excluding cost of land but including all necessary skilled imported labour for erection of the machinery.

67. Where the Factories are at present situated it is always disadvantageous in regard to 66 (*d*).

68. Yes.

(*a*) In our case.

(*b*) No.

VII. Equipment.

69. We think that our present Factory could be worked economically if we can dispose of its full output although we are of opinion that under present day circumstances to give a fair return on capital outlay, a plant capable of producing 60 tons to cement per day would be the most economical.

70. Yes.

71. 50 per cent. of the total outlay of the capital.

72. "Kominor" Ball and Tube Mills No. 16 for grinding steel balls in the former and Flint pebbles in the latter.

Dry process.

Rotary Kiln 72′ long 6′ Diameter.

Coal firing out-turn of clinker and finished product is one ton per hour. All F. L. Schmidt & Co.'s make (Copenhagen). Electric power for driving motors, supply of electricity from the Electric Supply Corporation. The above plant and machinery were erected in 1906 and electricity in 1911.

73. This question requires careful consideration as there is no doubt our machinery is not sufficiently up to date to enable us to successfully compete against competition.

74. Yes. For the Rotary Kiln plant 30 per cent. of weight of clinker produced is required as coal fuel, whereas in the vertical or Thiele Kiln 20 per cent. and a poor quality coal or coke may be used. The estimate for Cement Plant given in question 65 would be from Rs. 30/40,000 less by erecting a Theile Kiln.

75. Since 1916 we have installed two 250 K. W. Rotary Convertors. This extension being necessitated by the change of our supply from D. C. to A. C. current. The change has increased the cost of our current by approximately 15 per cent.

76. (*a*)
(*b*) } Not under present market conditions.

77. Ordinary cast iron and mild steel parts of small machinery are made in India.

VIII. Capital Account.

78. (*a*) Nil.

	Rs.	A.	P.
(*b*) Value of Land	22,742	2	8
(*c*) Value of Buildings	168,467	11	0
(*d*) Value of Machinery	315,570	8	3
(*e*) Miscellaneous Assets	378,051	5	3

79. The figures given in No. 78 represent the actual value and the total depreciation written off on buildings is Rs. 49,446-6-8 and on machinery Rs. 234,506-15-9.

80. Having actually set aside for depreciation at the rate of 10 per cent. on the value, the fund created is little excessive. The rate of depreciation taken for the purpose of Income-tax is 6 per cent. and we think it reasonable.

81.

82. In the year 1923 we paid Rs. 56,686-2-7 for the value of electric machinery supplied by the English Electric Company.

83. The Authorised Capital of the South India Industrials Limited of which the Madras Portland Cement Works is one of the Industries is Rs. 30,00,000. Subscribed and fully paid up Capital is Rs. 15,00,000 and it is divided into 10,000 Preference shares of Rs. 100 each and 25,000 Ordinary shares of Rs. 20 each.

84. The rate of interest payable on Preference Shares is 6 per cent. Yes, they are cumulative dividends and no arrears of dividend are due.

85. We have no deferred shares.

86. (*a*) The paid up share capital of the Company was Rs. 35,00,000 up to 30th September 1909 since then the paid up share capital is Rs. 15,00,000.

(*b*) The actual amount of dividend distributed for Preference shares is Rs. 10,80,000 and for ordinary shares Rs. 14,25,000.

(*c*) The percentage on Preference shares is Rs. 100·8 and on ordinary shares Rs. 200·85.

87. The average rate of dividend is 15 per cent. for the full period.

88. Debenture loan is just being raised.

89. The Reserve Fund of the Company is Rs. 5,75,768-1-4 which is created from the profits.

90. We do not contemplate any extension or replacement of machinery.

IX. COST OF PRODUCTION.

Please see the statistics sent under separate cover.

91. The two forms are attached herewith duly filled in.

92. Yes. The manufacturing cost has increased since the last few years owing to the plant not turning out to its full capacity. The present price at which the factory buys electric power from the Madras Electric Supply Corporation has increased the cost. The main items affected are charges under repairs in addition to the general increase in the price of materials. If the factory turns out to its full capacity we can expect a reduction of 25 per cent. of the manufactured cost.

93. The works cost for the year 1922-23 was to some extent abnormally high owing to increase in the price of coal, gypsum and electricity.

Cannot furnish an estimate.

94. Yes. Cost sheet for 1922-23 is sent separately.

95. No.

(*b*) Overhead charges.

(*i*) Depreciation.

96. Please refer to our answer to Question No. 80.

97. Please refer to our answer to Question No. 79.

98. Cannot say.

99. Cannot say.

100. Rs. 1,50,000 for a year and Rs. 8 lakhs for the full capacity.

101. Yes. No necessity to borrow.

102. Not understood.

103. Please refer to the statistics sent to you.

104. Rs. 1,50,000 3 months.

105. It is necessary to hold large stocks of raw materials especially raw shells owing to difficulties of transportation in the dry weather. Also clay has to be gathered during 3 or 4 months of the year. Coal is also to be stocked in fairly large quantities owing to the difficulty of Railway wagons supplied.

Stock of shells usually held 20,000 paras.

Clay, 500 tons.

Coal 500 tons.

(*iii*) Agent's commission and head office expenses.

106. Yes. Under the direct supervision of Directors, and has no managing agents.

107. (*a*) Rs. 25,000 annually.

(*b*) *Nil.*

108. *Nil.*

109. About Rs. 7 a ton.

X. MANUFACTURER'S PROFITS.

110. 10 per cent.

111. Please refer to our answer to Question No. 90.

112. Cannot say.

113.

XI. CLAIM FOR PROTECTION.

114. Without reference to the Fiscal Commission's report we are unable to answer the first part of this question and in regard to latter would reply as follows:—

(*a*) The cement industry possesses natural advantage in as much that abundant supplies of raw materials and a sufficient supply of labour and also a large home market are available. Power should be available far cheaper than at present and possibly in the near future with the development of hydro-electric schemes it may be possible to obtain cheaper electric power than at present.

(*b*) At present the cost of production with us is higher than selling price and without protection we shall not be able to develop our business to the extent we shall desire and by reason of which we are unable to answer Question 76 as we wish to do.

115. We are unable to answer this without reference to the Fiscal Commission's report. Without reference we may state

(*a*) Yes.

(*b*) Yes.

116. Yes.

117. We are of opinion that as the industry develops Indian consumers will appreciate the purchase of cement in the Indian market.

118. Protective duties should be imposed on all classes of cement which can be or are being manufactured. Portland cement can be readily distinguished for Customs purposes.

119. We are unable to say at the present moment.

120. (*a*) We think Rs. 9 per ton *ad valorem.*

(*b*) We do not know.

121. At least Rs. 25 per ton.

122. We are not at present aware of the total production of cement of Indian manufacture but do not think it at present exceeds the total consumption of the country.

FORM I.

Question No. 91.

Statement showing the total expenditure incurred by the South India Industrials Ltd. on the production of cement during certain years.

No.	1920-21.			1921-22.			1922-23.		
	Rs.	A	P.	Rs.	A.	P.	Rs.	A.	P.
1. Raw Materials	1,14,713	10	9	92,271	12	11	78,997	15	1
2. Factory Labour . . .	25,643	8	1	22,430	15	3	22,566	10	1
3. Power	47,829	0	6	52,651	1	10	62,707	11	0
4. Ordinary current repairs and maintenance of Buildings, Plant and Machinery.	23,116	6	6	38,941	7	2	39,353	11	8
5. General Services, Supervision and Office Charges.	75,293	10	9	76,169	7	8	77,965	15	0
6. Miscellaneous by H.O. .									
7. Contractor, Casks and Sacks.	33,934	15	8	20,468	5	10	13,104	8	11
Total output . tons	4,391			3,985			2,720		

FORM II.

Question No. 91.

Statement showing the Works Cost per ton of cement.

No.	1920-21.			1921-22.			1922-23.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1. Materials	23	4	3	28	2	6	29	0	8
2. Factory Labour . . .	5	3	2	5	10	1	8	4	9
3. Power	9	11	2	13	3	5	23	0	10
4. Ordinary current repairs and maintenance of Buildings, Plant and Machinery.	4	11	0	9	12	4	14	7	6
5. General Services, Supervision and Local Charges.	15	4	4	19	1	10	28	10	7
6. Miscellaneous by H.O. .									
7. Contractors, Casks and Sacks.	6	14	1	5	2	2	4	13	1

AVERAGE COST OF CEMENT PER TON.

During 1922-23.

	Rs.	A.	P.
1922.			
October	85	7	6
December	83	6	8
1923.			
January	87	8	7
February	104	11	8
March	59	6	5
April	71	11	8
May	67	9	0
June	77	11	8
July	74	4	7
September	55	1	6
TOTAL	766	15	5

Average cost per ton Rs. 76-11-2.

November 1922 and August 1923 were omitted in counting the cost, as the whole of those periods was occupied in repairing, and also the cost of cement was calculated up to and including General Charges (Packing and H. O. charges being omitted).

Statement II.—Further supplementary information submitted by the South India Industrials, Limited, dated 3rd February 1925.

We are in receipt of your telegram of the 31st ultimo to which we have yesterday wired you as under:—

> "cement total output tons 2,787-4-3 despatches 1,997-2-3 for 1924"
> Industrial

which we now confirm.

Witness No. 11.

SONE VALLEY PORTLAND CEMENT COMPANY, LIMITED.

Managing Agents.—Messrs. Martin & Co.

WRITTEN.

Statement I.—Replies to questionnaire (1) (a) forwarded by the Sone Valley Portland Cement Company, Limited, under cover of their letter, dated 8th July 1924.

With further reference to your letter No. 455 of 7th ultimo we have pleasure in enclosing you six copies of our replies to your questionnaire. We do not desire to give oral evidence.

ANSWERS TO QUESTIONNAIRE.

1. October 1922.

Private Limited Company.

2. (*a*) Roughly about 1 per cent.

(*b*) Sir R. N. Mookerjee, K.C.I.E., K.C.V.O., Chairman of the Board of Directors and also Senior Partner of Messrs. Martin & Co., who are the Managing Agents.

3. Only cement.

4. October 1922.

5. About 50,000 tons per annum.

6. For the year ending 30th September 1923 the output was about 23,000 tons of clinker.

7. Japla, E. I. R.

(*a*) Yes.

(*b*) Yes.

(*c*) Yes.

(*d*) Labour conditions fairly satisfactory.

(*e*) Close vicinity to supplies of raw materials, coal and fuel supplies, labour and important selling centres.

8. No.

9. Yes. To British Standard Specification only. British Standard Specification suitable for Indian conditions.

10. Yes.

No.

To the inability of Indian manufacturers to overcome the prejudice existing against indigenous cement and their inability to supply Indian cement in casks and owing to the overproduction of cement by Companies located in India.

11. Limestone, Gypsum, Shale.

12. (*a*) 75,000 tons of Limestone
1,500 tons of Shale.
1,500 tons of Gypsum.
} Output 50,000 tons cement per annum.

(*b*) As above.

13. For one ton of cement, 30 cwts. limestone, 0·6 cwts. of shale, 0·6 cwts of gypsum.

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(*a*) *Nil.*

(*b*) Approximately 53 per cent.

(*c*) Practically *nil.*

14. Varies from 1·4 to 1·55.

15. 96 per cent. to 97 per cent.

16. Limestone supplied from Rohtas Quarries about 5½ miles from the Works.

17. Limestone collected by hand labour and transported by ropeway.

18. Royalty on limestone payable to Government at the rate of Re. 0-1-1 per ton.

19. (1) Re. 0-1-1 per limestone ton royalty.
    (2) Re. 1-4-0 per limestone ton labour.
    (3) Re. 0-5-0 per limestone ton haulage.
    (4) Re. 0-2-0 per limestone ton miscellaneous.

20. Lease granted for sufficient length of time to warrant building of Works. Terms—as stated in Question 18 *plus* an annual ground rent of Rs. 100 considered favourable.

21. Yes. No deterioration expected.

22. No.

23. 30 years.

(*a*) Cost of raw materials will increase on account of greater depth of face.

(*b*) *Nil.*

24. No.

25. No.

26. No.

27. No.

QUARRY LABOUR.

28. Monthly wages bill estimated at Rs. 7,400.

Average wages per man about Rs. 19 per month.
Rates of wages constant since work started.
} Average labour employed about 400 men

29. No. Except during agricultural seasons.

30. Both indigenous and imported labour employed. Sufficient quantities available.

31. Yes, but it is readily trained.

FACTORY LABOUR.

32. No.

33. None.

34. No imported labour from abroad used. Every facility given for training Indian labour.

35. Does not apply.

36. 900 to 1,000 Indian workmen wages from Rs. 150 per month down to Rs. 15 per month.

37. (*a*) Indian factory labour for 1922-23, Rs. 1,76,000.

(*b*) Average wages paid as under—

Burners . . .	Rs. 100 per month (and bonus on output).
Fitters . . .	Rs. 47 per month.
Fitters Mates . .	Rs. 14 per month.

Blacksmiths . .	Rs. 38 per month.
Carpenters . .	Rs. 57 per month.
Moulders . .	Rs. 35 per month.
Masons . . .	Rs. 39-8 per month.
Khalasis . . .	Re. 0-12 per day.
Coolies . . .	Re. 0-8 per day.

No appreciable increase in the two years.

38. Indian labour force sufficient. From both.

39. Indian labour improves with training, but is much less efficient than Western labour.

40. All labour housed in pukka brick quarters. Medical hospital and sports facilities provided.

POWER.

41. Steam driven electrical plant.

42. Power generated on the Works from coal. Cost one anna per unit.

No knowledge.

43. Coal used and sufficient available.

44. From 3 to 5 lbs.

45. Distance about 200 miles.

F.o.r. price of coal from Rs. 7 to Rs. 10 per ton. Freight Rs. 5 to Rs. 6 per ton.

46. No.

47. No.

48. It is estimated that for 1923 the productive capacity of the Cement Works in India was about 450,000 tons but no information is available as to what quantity was actually produced.

49. No reliable information available but the demand is certainly much less than what the Works in India are capable of producing.

50. We do not think so in view of the Government retrenchment proposals.

51. Calcutta and Northern and Eastern Bengal. Distance from our Works at Japla to Calcutta is about 370 miles.

52. Yes. Central Provinces but there we meet with strenuous competition from other Indian Cement Companies. We are unable to state what the consumption would be in that market.

53. No. We have endeavoured to export cement to Burma but on account of the high freight from Calcutta to Rangoon we found business practically impossible.

54. Our cement is purchased by the different bodies mentioned but as we only commenced manufacture in October 1922 we are unable to give comparative rates.

(1) During war period.

(2) Each of the last 5 years.

55. From Britain although we should mention that the landed cost of British cement is about 20 per cent. higher than cement from the continent.

56. We have no information.

57. No information available.

58. No information available.

59. No information available.

60. No information available.

61. In our opinion competition is keenest in Calcutta market.

62. No information.

63. No information.

64. No information.

65. No information.

66. (*a*) Yes.

(*b*) Yes.

(*c*) Yes.

(*d*) Yes.

(*e*) Yes.

(*f*) Yes.

(*g*) Yes.

(*h*) Yes.

But no definite figures or information available.

67. (*a*) Permanent until India can produce its own machinery and plant.

(*b*) Temporary. Until Indian expert labour sufficiently trained.

(*c*) Temporary.

(*d*) Permanent.

(*d*) Permanent.

(*f*) Permanent.

(*g*) Permanent.

(*h*) Permanent.

68. Yes.

69. Yes. 50,000 tons per annum plant.

70. Elaborate and expensive machinery essential.

71. About 50 per cent.

72. (*a*) Aerial ropeway 5½ miles long. Makers—British Ropeway Engineering Co.

(*b*) Two Jaw Crushers—E. Newell & Co., Ltd.

(*c*) Two Ball Mills and four tube mills.

(*d*) One Rotary Kiln and Cooler—E. Newell & Co.

(*e*) One Coal Crusher, one Coal Dryer, one compound Grinding Mill—E. Newell & Co.

(*f*) Two Steam Turbo Generators and condensing Plants—Richardson Westgarth & Co., Ltd.

(*g*) Four water tube Boilers—Babcock and Wilcox.

(*h*) Electric Motors (Siemens Bros). All machinery brought into use on October 1922.

73. Yes.

74. In principle cement machinery has remained unaltered but minor improvements have been effected.

75. No.

76. No.

77. *Nil.*

VIII.—CAPITAL ACCOUNT.

78. (*a*) Leases and concessions, Rs. 32,000.

(*b*) Lands, Rs. 36,000.

(*c*) Buildings, Rs. 20,00,000.

(*d*) Plant and machinery and miscellaneous assets, Rs. 56,30,000.

79. Actual cost.

Depreciation written off Rs. 3,84,600.

80. The amount of Rs. 3,84,600 is the estimated amount of actual depreciation.

81. Estimated present-day cost cannot be definitely stated, but it would cost less to erect a new Works. The operation cost of a new factory would be the same as existing Works.

82. Estimated amounts spent on purchase of plant and machinery to September 1923 as in Question 78 (*d*).

83. Authorised Capital Rs. 1,00,00,000. Subscribed paid up Capital Rs. 85,35,640 ordinary shares only.

84. No preference shares.

85. No deferred shares.

86. No dividend yet paid.

87. Does not apply.

88. No debenture loans.

89. No reserve fund.

90. Not contemplated any extension or replacement.

91. *Cost of production.*—As our factory has only been in operation since October 1922 it is not proposed to produce the costs for our first year ending September 1923.

Owing to sundry unavoidable troubles experienced in the starting up of this huge plant, an accident to our aerial ropeway which restricted our limestone supplies, and the small output of clinker obtained, our costs for year 1922-23 do not give a fair indication as to what could be done under normal conditions.

92. As no cost figure given does not apply.

93. As no cost figure given does not apply.

94. Yes, system of cost accounts has been adopted.

95. No.

96. 7½ per cent. on plant and machinery. 2½ per cent. on 1st class buildings. 5 per cent. on second class buildings and 10 per cent. on temporary erections. Income-tax depreciation rates considered sufficiently accurate for cost purposes.

97. Total amount claimed from Income-tax Authorities for depreciation, roughly Rs. 3,56,000 on the cost value of the assets as under:—

	Rs.
Buildings	47,308
Machinery	3,04,972
Miscellaneous assets	4,408

The rates for depreciation, other than the income-tax rates, will depend upon the extent of the wear and tear at the end of any particular year, but generally speaking the income-tax rates may be taken as representing fairly accurately the rates of actual depreciation.

98. See reply to Question No. 81.

99. (*a*) The incidence per ton of cement on full output is equal to Rs. 7·13 per ton.

100. Working Capital required per month is equal to about Rs. 1,00,000.

101. It has been necessary to borrow.

102. Amount borrowed to date about Rs. 3,50,000 interest payable at 6 per cent.

103. As no cost figures given this question does not apply.

104. About Rs. 1,25,000.

105. Stocks of coal average Rs. 1,17,300.
Gypsum, Rs. 2,700.
Shale, Rs. 250.

106. Head Office in Calcutta under control of Managing Agents.

107 and 108. Managing Agents allowance Rs. 1,000 per month to cover office rent, stationery, postage, European Accountants supervision, etc., *plus* an over-riding commission of eight annas per ton on cement delivered.

110. Not less than 15 per cent.

111. Nothing in this nature contemplated meantime.

112. Not contemplated

113. About Rs. 25 per ton of cement on full output.

114. (*a*) Yes.

(*b*) The industry is not likely to develop so rapidly as it would otherwise do without the help of protection.

(*c*) Yes.

115. (*a*) Large scale production achieves increasing economy.

(*b*) Yes.

116. Yes.

117. Yes.

118. Yes, on all kinds of cement.

119. We are unable to make any suggestion.

120. (*a*) At present the existing custom duty is 15 per cent. on an *ad valorem* rate of Rs. 60 per ton or equal to Rs. 9 per ton.

(*b*) Transport charges, etc., such as freight, insurance, etc., from the United Kingdom are at present estimated at Rs. 13-12-0 per ton.

122. Yes. The productive capacity of the Indian cement factories does exceed the total consumption of the country. If a substantial increase in the present duty on imported cement be sanctioned, this will result in a greater demand for Indian cement of cheaper price. An increased demand for Indian cement will help the Indian manufacturers to maintain their Works on full output without extra capital expenditure and in addition to stabilising the industry, the result will be greater economy in working expenses with better results to the Company and cheap rates to consumers.

Statement II.—Correspondence with the Sone Valley Portland Cement Company, Limited.

No. I.

Letter from the Tariff Board to the Sone Valley Portland Cement Company, Limited, Calcutta, dated the 26th July 1924.

I am directed to acknowledge the receipt of your letter, dated the 8th July 1924, forwarding six copies of your replies to the questionnaire issued by the Tariff Board on the subject of the cement industry.

2. The Board regret that you have not seen your way to supply the figures of the cost of production during the first year of your firm's working. They fully appreciate the fact that, owing to special reasons, the costs for the whole year may not give a fair indication of normal results. But in that case it might be possible to give the figures for some shorter period unaffected by the disturbing causes. It is equally important that the Board should be placed in possession of your estimate of the probable cost of production under normal conditions when the factory is working to full capacity. It is impossible for the Board to determine whether an industry is in need of protection or not, except by a comparison of production costs with the selling price of the imported articles. You will recognize that the Board must find difficulty in dealing with an application for protection by a manufacturing firm when essential information is not disclosed.

3. I am to say that the Board hope that you will reconsider the matter in the light of what is said above, and also that your firm will depute a representative to give oral evidence at Calcutta where the Board will be from the 10th August to the 6th September. There are many points which cannot be fully examined unless the Board have an opportunity to explore them in oral discussion, and the written evidence loses much of its value unless it can be supplemented in this way. The Board would be glad to know what you decide by the 12th August at latest.

No. II.

Letter from the Sone Valley Portland Cement Company, Limited, Calcutta, to the Tariff Board, dated the 5th August 1924.

We are in receipt of your letter of 26th ultimo, and note the contents.

We regret that it is impossible for us to depute a representative to give oral evidence, as our manager is at present on sick leave, and we are unable to state at the moment when he will return.

With regard to our cost of production, owing to the reasons stated in our replies to your questionnaire, we regret that we are not in a position to submit any figures.

We trust, however, that the cost of production figures and the oral evidence of other cement companies, will be sufficient for your purpose.

No. III.

Letter from the Tariff Board, to the Sone Valley Portland Cement Company, Limited, Calcutta, dated the 22nd August 1924.

In reply to your letter, dated 5th August, I am directed to say that the Board regret that your Company still find themselves unable either to submit figures showing their cost of production or to give oral evidence before the Board. In effect the Company have taken up the position that, while they ask for protection they are not prepared to agree to the measures by which an adequate investigation of the claim made is possible. In the circumstances the Board cannot pursue the matter further at present, but in their Report on the cement industry it will be necessary to explain clearly the view which the Board hold regarding the attitude of your Company.

No. IV.

Letter from the Sone Valley Portland Cement Company, Limited, Calcutta, to the Tariff Board, dated the 27th August 1924.

We are in receipt of your letter of 22nd instant. We have, in our replies to your questionnaire, already given you the reasons why we are unable to supply you with our costs.

We would reiterate that our cost could be of no comparative value to you, as they do not represent what could be accomplished under ordinary conditions. During the short period our Works have been running we have only manufactured a small percentage of what our plant is capable of turning out and we have been further handicapped by an accident to our aerial ropeway, which shut off our limestone supplies for a period of about nine months, during which time we were forced to purchase outside supplies of limestone at greatly enhanced prices. This together with the usual initial difficulties in bringing plant of this nature into operation and also the sudden death of our first manager has, further, delayed our ascertaining accurate cost and, therefore, we greatly regret, we are unable to give you any comparative figures which would be of assistance to you.

Statement III.—Further supplementary information submitted by the Sone Valley Portland Cement Company, Limited, dated the 2nd February 1925.

In reply to your letter of 31st ultimo, we have to inform you that—

1. Our total output of clinker for the calendar year ending 1924 amounted to 41,400 tons, but of this period our kiln was shut down for two months owing to the accident to our aerial ropeway.
2. Our total despatches for the 12 months ending December 1924 amounted to 34,350 tons.

Witness No. 12.

GOVERNMENT OF BOMBAY.

Statement I.—Letter, dated 10th July 1924, from the Government of Bombay, in reply to questionnaire (2) (a).

I am directed by the Government of Bombay (Transferred Departments) to refer to your letter No. 468, dated the 10th June 1924, on the subject noted above.

2. In reply I am to forward herewith a copy of the note prepared by the late Assistant Director of Industries, Bombay Presidency, furnishing information on the several points referred to in your letter, and to observe that particulars regarding the estimated demand for cement for use in irrigation and other Public Works will be communicated to you hereafter, if available.

Accompaniment to Government letter No. 4861-D., dated the 10th July 1924.

(1) There are no cement works in the Presidency proper. There is one cement factory at Porebunder, Porebunder State, Kathiawar, named the Indian Cement Company, Limited, managed by Messrs. Tata Sons, Limited, Navsari Building, Hornby Road, Bombay, and another the Dwarka Cement Company at Dwarka (Baroda State), Kathiawar, managed by Messrs. Purshottamdas Vithaldas and Company, Rampart Row, Bombay. Both are working satisfactorily as regards the quality of their products and management.

(2) There seem to be no prospects of the establishment of additional cement factories either in the Native States of the Presidency proper just now as the cement manufacturing industry is now passing through a great depression in the trade and the prices are said to be so low as to make it practically impossible to earn a profit.

(3) *The Indian Cement Company, Limited, Porebunder*, enjoys concessions and pays royalty to the Porebunder State as follows:—

(*i*) Land, (*ii*) Raw Material, (*iii*) Fuel.

13,334 square yards of land given to the Company at the annual rent of 3 annas per square yard for a period of 40 years. All filling and levelling as well as the construction of a sea wall and railway siding to be done and maintained by the State at their own expense and the Company to pay to the State interests at 4 per cent. on all such expenditure.

The State to build three bungalows for the officers of the Company and the Company to pay an annual rent of 1 anna per square yard of land occupiped, and 7 per cent. on the total expenditure of the buildings.

The Company to pay to the State an annual rent of Rs. 100 for setting up poles for electric wires, telephones, etc.

The State to supply 6,000 gallons of sweet water per day to the Company at Re. 1 per 1,000 gallons.

The State to charge the Company an anchorage fee of Rs. 5 per month for each vessel or craft lying in the creek, and the ships are at liberty to leave or enter the port any number of times for one monthly fee of Rs. 5.

The State not to charge to the Company any customs, octroi, import or export duty on raw material, machinery, etc., during the construction of the works.

After the completion of the works the Company to pay to the State duties at the prevailing tariff rates subject to the maximum of 3 annas per ton of coal or coke imported by sea. No export duty on cement to be charged by the State to the Company as that is included in the royalty.

(*iv*) *Royalty.*—The State to supply all raw materials, clay, sand, debris, etc., free of all charges and duties and the Company to pay to the State a royalty of 5 annas for every ton of cement manufactured, for 40 years. All cement for the use of the State to be supplied by the Company at a rate of 10 per cent. below the current market rate.

(4) *The Dwarka Cement Company, Limited,* enjoys the following concessions and pays the royalty to the Baroda State as follows:—

(*i*) *Land.*—An area of land not less than 100 bighas given by the State in Okhamandal Division free of all charges for erecting the factory, etc., for a period of 40 years.

(*ii*) *Raw material.*—All lands, creeks, beaches, etc., containing the suitable raw material in Okhamandal Division given by the State to the Company free of all charges and rent for digging, quarrying, etc., for the manufacture of cement except lands required by the State for their own use, culturable waste, or lands in occupation of any one.

(*iii*) *Fuel.*—There is no concession in regard to this item from anybody.

(*iv*) *Royalty.*—The Company to pay royalty to the State at three annas per ton of cement manufactured for the first five years after the commencement of the working, and at four annas per ton for the next period of five years, and at eight annas per ton thereafter during the rest of the term or period of forty years. In the event of the Company ceasing the business of manufacturing cement continuously for five years the Company shall be liable to pay to the State a royalty at two annas per ton computed on the quantity of cement manufactured during the year immediately preceding such cessation.

(5) The natural advantages possessed by the province of Kathiawar are that it has several seaports and abundant and unlimited supply of raw material. Markets on the west coast of India up to Singapore and Persian Gulf can be easily reached. There is also plentiful supply of labour in the district and good scope for future extensions. The disadvantages are that Kathiawar is very far from Bengal coalfields, though coal from the coalfields of Central Provinces would be nearer provided the required quality of coal could be had from these mines.

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Statement II.—Letter from the Government of Bombay, dated 25th September 1924.

In continuation of this Government's letter No. 4861-D., dated the 10th July 1924, on the subject referred to above, I am directed by the Government of Bombay to state that the estimated demand for cement for the next three years would be 22,500 tons for the Public Works Department and 44,000 tons for the Development Department.

Witness No. 13.

GOVERNMENT OF THE CENTRAL PROVINCES.

Statement I.—Letter, dated the 12th July 1924, from the Government of the Central Provinces, in reply to questionnaire (2) (a).

With reference to your letter No. 468, dated the 10th June 1924, I am directed to forward a note giving the required information regarding the condition and prospects of the cement industry in this province.

Note.

(1) There are three Cement Companies in this province, all working at Katni in the Jubbulpore District, *viz.*:—

(1) Katni Cement Company.
(2) Jubbulpore Portland Cement Company.
(3) Central Provinces Portland Cement Company.

The first two are doing well. The third has recently been restarted but is not flourishing owing to disputes between the shareholders.

(2) The productive capacity of the existing cement works is more than sufficient to meet the present demand and there is no prospect of additional factories being started.

(3) No special concessions have been made by the Local Government in regard to (*i*) land, (*ii*) exploitation of raw materials or (*iii*) utilization of fuel. The Companies are required to acquire the necessary land in accordance with the provisions of the mining rules which, though not applied to minor minerals, are followed by the Local Government in granting concessions for such minerals.

(4) The Central Provinces Portland Cement Company (the oldest) pays no royalty; it pays an acreage rate of Rs. 20 per acre half-yearly on the area used for mining operations, Rs. 2-8 per acre half-yearly for reserved area, subject to a half-yearly minimum of Rs. 2,750 and a half-yearly maximum of Rs. 4,000.

The Katni Cement Company pays royalty at Re. 0-8-0 per hundred maunds of cement.

The lease of the Jubbulpore Portland Cement Company has been sanctioned but not yet finally executed. In this lease the Local Government has fixed a consolidated acreage rate (in lieu of royalty or dead rent *plus* surface rent) of Rs. 40 per acre per annum for the area used for mining subject to a minimum half-yearly payment of Rs. 500 and Rs. 5 per acre per annum for the area held in reserve.

(5) There is an ample supply of raw material of fair quality in the Katni area. Katni is centrally situated and is not very far from the area from which fuel is obtained, *viz.*, Chhindwara and Rewa State. Thus the cement production of Katni which is carried on under favourable conditions may be expected to increase as the demand for cement in India expands.

(6) The estimated demand for cement for use in irrigation and other public works for the next few years is 440 tons annually.

Statement II.—Replies to questionnaire (2) (b).

(Letter, dated 1st October 1924.)

I am directed to refer to your letter No. 679, dated the 28th July 1924, in which you request the assistance of the Government in examining certain aspects of the case for the protection of the Indian cement industry.

In paragraph 5 of your letter you detail five points on which the Tariff Board desire to have this Government's opinion. These points are dealt with below in the order in which they are stated in your letter:

(1) If the price of cement remains at about its present level, it is unlikely that there will be a substantial increase in the consumption of cement for the construction of public works in this province.

(2) So long as the price of Indian cement is not increased above that of English cement landed in India, the growth of the consumption of Indian cement, for the purposes for which it is at present used, is not likely to be adversely affected. If it were raised above that figure a decrease in consumption would certainly occur.

(3) At present prices cement cannot be used to any extent economically to replace lime. It would not compete seriously with lime until the price falls to about Rs. 10 to Rs. 15 per ton. This matter has not been examined in detail in this province in connection with important public works, as works under construction are not of a nature on which any large quantities of cement could be used unless it was obtainable at a price very much below that now charged.

(4) Indian cement is used almost exclusively in this province. Its quality has been found satisfactory and, so far as it is possible to judge at present, it is as good as the English product.

(5) Though cement packed in bags is, of course, more liable to deterioration than when it is packed in barrels, no trouble has been experienced on this account and the use of barrels in India does not appear to be justified. When cement is obtained from England it is usually ordered in comparatively large quantities and not infrequently has to be stored for a considerable time. The use of barrels does not always protect the imported cement from damage in transit and, in some cases, it arrives in a damaged or partly damaged condition. By using Indian cement it is possible to place orders to suit the rate of consumption and storage over long periods should not be necessary. The use of barrels for packing imported cement does not, in the opinion of this Government, in itself justify a preference for the imported production.

Witness No. 14.

GOVERNMENT OF BURMA.

Statement I.- Letter, dated 10th July 1924, from the Government of Burma, in reply to questionnaire (2) (a).

In reply to your letter No. 468, dated the 10th June 1924, on the subject noted above, I am directed to furnish the following information on the points enumerated in your letter:—

(1) There are no cement factories in Burma at present.

(2) An extract from a note, dated the 15th March 1923, by Dr. G. de P. Cotter, late Superintendent, Geological Survey of India, Burma Party, is enclosed.

(3) *Nil.*

(4) *Nil.*

(5) A reference is invited to Dr. Cotter's note mentioned under (2) above.

(6) Approximately 25,000 barrels of cement (5,000 tons) are used yearly by the Irrigation and Buildings and Roads Departments of the Public Works Department in Burma, and a considerable quantity of cement is also utilised by Municipalities and District Councils but it has not been possible to obtain figures for the latter within the time allowed for this reply.

Copy of extract from note No. 205/U.O., dated the 15th March 1923, from Dr. G. de P. Cotter, Superintendent, Geological Survey of India, Burma Party.

1. For the manufacture of cement the main raw materials required are:—

Limestone.
Clay.
Coal or other fuel.

The limestone must contain less than 5 per cent. of $MgCO_3$. The clay must be of a suitable type chemically, free from any quantity of magnesia, and not too preponderant in silica. The coal or other fuel ought to be reasonably close to the cement factory and to the other raw materials.

2. As regards clay, there would probably be little difficulty in finding a suitable clay for cement manufacture. Clay is a very widely distributed deposit, and clays of various kinds are to be found all over Burma.

3. Limestones, dolomites and magnesian limestones are widely distributed over the Shan Plateau, Karenni, Salween district, Thaton and Amherst, and outliers of these limestones are found in Tavoy and Mergui. But little is known of their chemical composition. In the table of analyses accompanying the Director, Geological Survey of India's letter No. 1518, dated the 20th April 1912, at page 45 of the file, a list of selected limestones of the purer type is given. But the limestones of the Shan Plateau are in the main dolomite or dolomitic, at any rate in the lower or Devonian part of the group. See the table of analyses given on page 188 of La Touche's Memoir on the Shan States (Memoirs, Geological Survey of India, XXXIX, p. 188 and remarks on p. 187). There has been no systematic examination of the

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Burmese limestones from the point of view of cement manufacture, and although limestone is abundant in the Mandalay district, we are unable to say much about its purity. In the list of analyses accompanying the Director's letter quoted above a specimen from Tonbo station on the Maymyo railway (that is, from the ridge north of Tonbo) had less than 0·2 per cent. of $MgCO_3$. A single analysis is not, however, sufficient, and a limestone should be analysed at numerous selected spots before its average composition can be ascertained. Fairly pure limestone does, however, apparently occur near Tonbo.

I have no doubt that there are many other localities in the Shan Plateau where pure limestone occurs, but we have not searched for them.

In regard to the tertiary part of Burma west of the Shan Plateau, there are sparse occurrences of beds of foraminiferal limestone interbedded with clays and sandstones. These limestones are probably fairly free from magnesia but they have not been analysed. Thus at the limehill (Tondaung) south of Thayetmyo, there is a bed of limestone which is believed to be sufficiently pure for cement manufacture. Similar limestone beds occur sporadically in Henzada and Bassein.

4. Coal of a good quality is, however, not obtainable locally in Burma. This fact is a serious objection to cement manufacture in Burma.

A company would have to face competition from India, where several companies, situated near deposits of good coal, are manufacturing cement. The success of a cement factory is therefore doubtful. There is also competition from foreign cement manufacturers, and a good deal is, I believe, imported from Hongkong.

* * * * * * * *

TABLE.

Analyses of Indian limestone containing 95 per cent. $CaCO_3$ and over, compiled from various sources.

Locality.	$CaCO_3$.	$MgCO_3$.	Al_2O_3 Fe_2O_3.	SiO_2 & insolubles.	Other constituents, loss, etc.	TOTAL.
Tonbo, Northern Shan States.	99·46	0·19	0·39	0·27	..	100·31 T. R. Blyth.
Ditto .	99·39	0·16	0·79	0·39	..	100·73 T. R. Blyth.
Moulmein (sent from) .	98·74	0·71	..	0·58	tr.	100·03 A. Tween.
Nampating, Northern Shan States.	98·71	0·91	0·43	0·91	..	100·96 T. R. Blyth.
Phaienkoo, Moulmein .	98·50	1·05	0·55	0·20	0·50	100·80 F. R. Mallet.
Thaon district . .	97·43	1·22	0·49	0·93	..	100·07 C. S. Fawcit.
,, ,, . .	97·20	2·35	0·19	0·31	..	100·05 C. S. Fawcit.
,, ,, . .	96·65	2·92	0·13	0·32	..	100·02 C. S. Fawcit.
Ho-un stream, Northern Shan Sates.	96·00	4·23	0·35	0·35	..	100·93 T. R. Blyth.

Assay of the sample of limestone from Tavoy.

Moisture	0·19
CO_2	45·32
Insoluble residue	1·25
Al_2O_3 and Fe_2O_3	3·53
CaO	30·46
MgO	19·72
	100·477

Letter from the Government of Burma, dated the 26th August 1924 in reply to questionnaire (2) (b).

I am directed to acknowledge the receipt of your letter No. 679, dated the 28th July 1924, on the above subject and to reply to your questions *seriatim.*

Question 1.—There is no likelihood of there being any substantial increase in the consumption of cement for construction work in this province. The only factor which would lead to a substantial increase in the use of cement, would be the introduction of reinfored cement concrete for buildings, but, owing to the inefficient labour available, this type of construction is not likely to be largely adopted.

Question 2.—It is not easy to give a reply to this question, but owing to the small quantity used in public works, it is not thought that the price will greatly influence the quantity used.

Question 3.—There is no known purpose for which cement could be economically used to replace lime. Owing to its quick setting properties it is unsuitable for ordinary brick masonry and even for foundation. A well made concrete, with the excellent lime obtainable in Burma, is preferable to the rather inferior cement concrete which is obtained by using sands locally available.

Question 4.—Cement of Indian manufacture has not been used in Burma on Public Works.

Question 5.—The packing of cement in bags is a serious objection to the use of Indian cements or any other cement that has to make a sea voyage owing to the damp sea air killing the cement. The sea voyage alone would prohibit the use of cement packed in bags in Burma even during the dry weather and its use in the rains would be out of the question.

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Witness No. 15.

GOVERNMENT OF BENGAL.

Statement I.—Letter, dated 16th July 1924, from the Government of Bengal, in reply to questionnaire (2) (a).

With reference to your letter No. 468, dated the 10th June 1924, asking for information on certain points regarding the condition of the cement industry in Bengal and the prospects of its future development, I am directed to say that with the exception of the occurrence of lime shells in the Sunderbans which are too costly for the manufacture of cement no suitable raw material for this industry exists in Bengal. There is therefore no possibility of the development of the cement industry from the materials available locally. No cement factory has yet been started in this province. The estimated average annual value of the demand for cement for use in the Public Works Department (Buildings and Roads Branch) may be taken to be Rs. 83,774 for the next few years. The estimate of the Irrigation Department has been called for and will be furnished as soon as available.

Letter, dated 25th July 1924, from the Government of Bengal.

In continuation of this department letter No. 3058, dated the 16th July 1924, I am directed to say that the average annual demand for cement in the Irrigation Department for the next few years in the ordinary way will be about 200 casks, but in the event of any large schemes being taken up the demand will be considerably greater.

Statement II.—Letter from the Government of Bengal, dated the 29th August 1924, in reply to questionnaire (2) (b).

With reference to your letter No. 679, dated the 28th July 1924, asking for the opinion of this Government on certain points referred to in paragraph 5, regarding cement industry, I am directed to state as follows:—

Item (1). No. Cement is used in those items of work for which no other ingredient is suited and its use is irrespective of its cost within certain limits. The increased use of cement can only come about with an increase in reinforced concrete construction but this will never be popular nor economical in Bengal because the aggregate for the concrete has usually to be railed for long distances.

Item (2). Cement will never replace lime and can only compete with lime if its price be, say, 1½ times the price of unslaked ghooting lime.

Item (4). Yes. During the dry season when cement is required in bulk and can be used up quickly, it is about equal to imported cement.

Item (5). Yes. The greatest drawback to the use of the Indian cement is the unsatisfactory way in which it is packed.

During the dry season when large quantities can be used up on work close to a railway station, and where good dry *pucca* godown space is available, there is not so much objection to this method of packing, but during the rains or on any construction where materials have to be carted any distance, or if the cement has to be stored for any length of time, it is not safe to use cement packed only in sacks.

Witness No. 16.

GOVERNMENT OF MADRAS.

Statement I.—Letter, dated 14th July 1294, from the Government of Madras, in reply to questionnaire (2) (a).

With reference to your letter No. 468, dated the 10th June 1924, regarding the Tariff Board's enquiry into the case for the protection of the cement industry, I am to enclose a copy of a letter from the Director of Industries, Madras, No. 485-A.-24, dated the 2nd July 1924, which furnishes information on all the questions raised in your letter, with the exception of that regarding the estimated demand for cement for use in Irrigation and other Public Works for the next few years. I am to say that this demand is expected to average about 1,000 tons a year.

Copy of letter from the Director of Industries, Madras, No. 485--A -24, dated the 2nd July 1924.

With reference to Government Endorsement No. 1699-I1--24-1, dated 17th June 1924, I have the honour to report as follows on the various points raised in paragraph 2 of the letter received from the Secretary, Tariff Board, Simla: —

1. The Madras Portland Cement Works under the management of the South Indian Industrials, Limited, is the only cement factory in Madras. The firm reported in January last that they were in a position to compete with foreign manufactures, and that they were holding their own against them. The product is becoming increasingly popular, and the firm have on the whole been selling cement to Government and *quasi*-Government bodies at preferential rates. The average annual production during the years 1921, 1922 and 1923 amounted to 3,553 tons. It is alleged that their present sale price is Rs. 65 and their cost of production ranges from Rs. 72 to Rs. 73 per ton. They are of course handicapped by their small output.

2. As regards the prospects for the establishment of additional factories, these depend on sufficient capital offering and the indications are that capital is very shy. It may also be doubted whether the market is not already overstocked with Indian cement. A large enterprise in the Central Provinces is finding difficulty in marketing its produce. It may be mentioned in this connection that Government granted in 1920 a concession to Mr. Ghose of Betamcherla for mining and quarrying limsetone and shale in Dhone and Nandyal taluks of the Kurnool district subject to the following conditions: —

(1) that the period of the lease be fixed at 30 years;

(2) that within four years from the grant of the lease an outturn of at least 30,000 tons of cement per annum must have been attained;

(3) that royalty be paid at 2¼ annas a ton of cement manufactured;

(4) that the lease be transferred to a strong financial syndicate within a period of three months of its formation.

This syndicate which included two prominent Bombay financiers—the Hon'ble Mr. Lallubhai Samaldas and Mr. Narottam Morarjee—floated a company in February 1923 under the designation of the Bezwada Portland Cement Company, Limited, with a capital of Rs. 50 lakhs. Owing however, to the depression in trade and the general tightness of the money market, the company was not able to obtain the minimum capital stipulated, and could not therefore proceed to allotment. The Syndicate eventually intimated that the concession was not desired by them and the mining lease granted to Mr. Ghose was therefore cancelled.

Another company—The Kistna Cement Company, Limited—was registered in 1920 with a capital of Rs. 25 lakhs for the establishment of a cement factory in the neighbourhood of Bezwada. It was proposed to manufacture 10,000 tons of cement and the promoter expected that cement could be manufactured at about Rs. 35 per ton. It would appear, however, that the progress of the company is being delayed as a suitable site could not be secured. It may be added that the company is very much under-capitalised and very little of the capital is subscribed for, much less paid-up. The prospects of the company are not good.

As imports of cement into the Presidency have for the last two years averaged 20,000 tons and as in the opinion of experts it would not be a commercial proposition to arrange for an annual production of less than 20 to 35 thousand tons of cement, there seems to be scope for the establishment of only one large scale cement factory on modern lines which would require however a capital of about Rs. 60 lakhs.

3 and 4. The concession granted to the existing factory is in respect of quarrying of shells from two quarries in the Nellore district at an annual rental of Rs. 5,000 and Rs. 1,500 respectively. The lease was subject to the condition that the quantity extracted in a year from both the areas should not exceed 8,000 tons, that the Director of Industries should be allowed to inspect the books of the company, and if it was found that any excess over 8,000 tons was quarried, the excess should be charged royalty at the rate of Re. 1 per ton. When the period of lease recently expired, the company applied for the renewal of lease in respect of one quarry for a further period of three years and the grant of a lease over a fresh and more suitable area in lieu of an area which it was difficult and uneconomical for the company to work. Pending a final decision on the company's application, the Board of Revenue sanctioned the grant of a temporary lease of one of the workable quarries, for which the company originally held a lease, for a period of six months, on condition that the lessee should pay a rent of Rs. 2,500 for the quarry for the period of six months and that he should pay royalty at the rate of Re. 1 per ton on the quantity of shells extracted in excess of 4,000 tons during the currency of the lease.

5. In the opinion of a leading cement expert, the limestone and clay deposits over which a concession was granted to Mr. Ghose lend themselves to easy and economical working, they contain an ample supply of raw material of uniform and excellent quality which will present no difficulty in the regular manufacture of Portland cement of unexceptionable quality and a works erected at Panyam or Bezwada on well-conceived modern lines and skilfully managed should prove a commercial success.

The Kankar deposits in the neighbourhood of Bezwada, the clay deposits of the same locality, the limestone deposit at Mutial in the Nizam's territory and upon the right bank of the Kistna in British territory were relied upon by the Kistna Cement Company. Bezwada was pitched upon by both concerns for the site of the factory owing to the following facilities its situation affords:—

- (*i*) proximity to sources of supply of raw materials,
- (*ii*) excellent railway facilities, being at the junction of broad and metre gauges,
- (*iii*) facilities of transport of clay, etc., by canals,
- (*iv*) availability of unskilled labour, also of building materials,
- (*v*) assured water supply from the Kistna and its canals,
- (*vi*) adaptability of the sub-soil for heavy structures and buildings,
- (*vii*) shortness of lead to Vizagapatam where large quantities of cement would be required in connection with the harbour scheme.

6. There is no information in this office as regards the estimated demand of cement for use in irrigation and other public works.

Statement II.—Letter, dated 20th February 1925, from the Government of Madras, in reply to questionnaire (2) (b).

I am directed to reply as follows to the several points raised in paragraph 5 of your letter No. 679, dated 28th July 1924.

(1) If the price of cement remains at about its present level, there may be some increase in the consumption of cement in view of the facts that reinforced concrete works are becoming more popular and that even private individuals are taking to the use of cement on a large scale. But the rate of increase in the next few years may not be as rapid as in the last 15 years, unless the cost of cement goes down appreciably.

(2) It is difficult to state definitely the percentages of increase in price that will retard or stop the growth of works in cement. But it may be that even 5 *per cent.* of increase in the present price would be likely to retard the growth of consumption.

About 25 *per cent.* of increase might stop the growth of consumption altogether and about 40 *per cent.* of increase might produce an actual decrease in consumption.

(3) The present cost of cement is 15 to 20 times that of lime. Cement cannot therefore be used at its present price to replace lime. If, however, the cost of cement could go down to about one-fifth of its present cost, it might begin to compete with lime.

(4) Indian cement has been used for Public Works in this Presidency and its quality has been found satisfactory, but such cements require prior testing to see if they are up to the British Standard Specification.

(5) Indian cement in bags is liable to deteriorate when transported during monsoon season. It is therefore preferable to pack the cement in barrels.

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Witness No. 17.

GOVERNMENT OF ASSAM.

Statement I.—Letter, dated 19th July 1924, from the Government of Assam in reply to questionnaire (2) (a).

I am directed to invite a reference to your letter No. 468, dated the 10th June 1924, asking for certain information regarding the cement industry.

In reply I am to say that no cement factories exist or have been started in Assam. The possibility of starting this industry was considered carefully in 1919 in consultation with the Government of India (Indian Munitions Board) and the Director of the Geological Survey of India. Assam possesses all the materials necessary in two localities, *viz.*, in the limestone areas in the Mikir Hills and in the southern slopes of the Khasi Hills, but the lowest manufacturing unit for a factory is 30,000 tons a year and the local demand would not probably exceed 5,000 tons. Consequently a factory established in Assam would depend mainly on markets outside the province. Serious difficulties of transport from both the localities would prevent the export of cement at rates which would enable it to compete with that manufactured elsewhere and in view of this consideration the idea of starting the industry in Assam was abandoned.

Statement II.—Letter from the Government of Assam, dated 19th August 1924, in reply to questionnaire (2) (b).

I am directed to acknowledge the receipt of your letter No. 679, dated the 28th July 1924, in connection with the cement industry, and to reply *seriatim* to the points summarised in paragraph 5 of the letter:—

Point (1). In the opinion of the Government of Assam, there is not likely to be any substantial increase in the consumption of cement for the construction of Public Works in the Province of Assam for some years to come.

Point (2). No reasonable increase in the price of cement would be likely to have the effect of—

(*a*) retarding the growth of consumption,
(*b*) stopping the growth of consumption altogether,
(*c*) producing an actual decrease in consumption,

so far as Assam is concerned.

Point (3). Cement cannot be economically used to replace lime in ordinary cases, and at no reduction in price within the limits of practicability could this be effected in Assam.

In further explanation of points (2) and (3) above I am to say that in the plains of Assam, except in the vicinity of the hills, suitable stone is not available and that the river sand generally contains too much mica to be of any use for concrete work. Before the Public Works Department, the Local Bodies, the Planting Community or the public can carry out any extensive building project, bricks have to be burnt, the bats are converted into Surki, and as a natural consequence, lime, which is available in the Province at about ¼th of the cost of cement, is used for concrete work and mortar. A certain amount of cement work is inevitable for cement plaster, etc., and this will be purchased even if the cost of cement is doubled. The use of reinforced brick-work in cement would to some extent alter the position; but at present this mode of construction has not been generally adopted.

Point (4). Indian cement has been used for Public Works in the Province of Assam and the quality has been found satisfactory and equal to that of cement imported from Europe. The fact that it is packed in bags often results in its being damaged or completely spilt either in course of transit or during storage.

Point (5). The Burma Chamber of Commerce (Witness No. 12) has put the case in regard to packing in their written representation printed at page 281 of the book containing the evidence of the applicants for protection, and their remarks equally apply to Assam. Some more satisfactory method of packing must be found to suit the climatic conditions of this Province. It is suggested that a solution of the packing problem might possibly be found in the use of steel drums. Messrs. Tata and Sons are shortly taking up the manufacture of steel sheets and might, if there was a demand, be persuaded to make up the manufacture of suitable drums. Empty drum should always find a ready sale in the Indian bazar. Failing steel drums the Chief Engineer, Assam, considers that the capabilities of "Venesta" chests of suitable size and strongly bound with steel bands might be investigated.

Unless improved packing arrangements are introduced for Indian cement, it is likely that preference will be given to imported cement even if the price is higher.

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Witness No. 18.

GOVERNMENT OF BIHAR & ORISSA.

Statement I.—Letter, dated 24th July 1924, from the Government of Bihar and Orissa in reply to questionnaire (2) (a).

I am directed to refer to your letter No. 468, dated the 10th June 1924, on the subject noted above.

2. In reply to your first question as to the number and existing condition of cement works in this province, I am to enclose a copy of a letter No. 1458, dated the 17th July 1924, from the Chief Inspector of Factories in this province. I am also to enclose a note prepared by the Director of Industries which deals in particular with the largest concern in this province, and also with the points raised in your questions No. (2) and (4).

3. As regards your question No. 3, I am to say that any concessions in the matter of land, the utilization of raw materials and the use of fuel, which are enjoyed by these companies must have been obtained from private owners, and Government have no information about them.

4. The annual requirements of the Public Works Department in both branches are estimated at about 1,000 tons of cement a year. This, of course, excludes the requirements of local authorities, as to which it is impossible to make an estimate.

Copy of a letter No. 1458, dated the 17th July 1924, from the Chief Inspector of Factories, Bihar and Orissa, to the Secretary to the Government of Bihar and Orissa, Revenue Department.

In reply to your memorandum No. 201-Com. T/IIC-51, dated 14th July 1924, regarding the case for protection in the cement industry, I have the honour to report as follows:—

2. The number of cement factories, so-called, on my register is three (3 only) of which one is at present burning limestone but not making cement. I do not think there are any others in this province and I have not heard of any proposal to establish any new cement factories. The existing factories are:—

(A) The Sone Valley Portland Cement Co., Ld., factory (Messrs. Martin & Co., Calcutta, Managing Agents) at Japla in the Palamau district. This is a recently established concern employing nearly 1,600 persons. It obtains raw materials from neighbouring quarries with which it is connected by a Telpher line. The buildings, plant and machinery are new and of an up-to-date kind. The staff includes officers of good technical training and experience. Scarcity of labour is reported at this factory.

(B) The Bihar Lime and Cement Factory at Jhajha in the Monghyr district is an old established factory, but it has been in disuse for some time until it reopened about the beginning of this year. The previous managing agents were Messrs. Holmes, Wilson & Co., Calcutta. The Proprietor at present is Mr. K. C. Roy Choudhury, Calcutta. Between 50 and 60 persons are employed.

(C) The Orissa Cement Co's., factory at Garh Madhupur in the Cuttack district is under the Managing Agency of Messrs. Bird & Co., Calcutta. When recently inspected it was not working as a cement factory; limestone was being burnt and ground for delivery to Messrs. Bird & Co. About 60 persons are employed. This factory also reports a scarcity of labour.

3. I regret I am unable to offer any useful reply to questions 2 to 6.

Note on the Lime and Cement Industry of Bihar and Orissa.

The lime industry of Bihar and Orissa is principally located in the South West corner of the Shahabad district, but very excellent limestone has also been located near Daltonganj to the East of the Sone. The Shahabad limestone is found at the bottom of the precipices which surround the Rohtas table land, in the valleys behind Shergarh, in the bed of the Karmanasa, and to the North of the plateau. The industry is served by the Grand Chord of the East Indian Railway which skirts the north of the table land and the Dehri Rohtas Light Railway which follows the narrow strip of land between the table land and the river Sone for 20 miles or more to the south.

2. The limestone is recovered by open quarrying. It occurs partly as a stratified deposit and partly in crystalline forms. In most places there is a considerable overburden which has to be removed; the deposit of stone being usually about 12 to 16 feet deep. After quarrying, the limestone is broken up and burnt in kilns of either the continuous or non-continuous type. The continuous kilns are shaped like bee hive ovens open at the top and they are about 16 to 20 feet in height. Coal and limestone mixed together in the proportion of 1 to 4 or 5 are loaded into the top of the kiln and eventually fall out at the bottom as quick lime. This has then to be picked over for any unburnt pieces and in spite of the difficulties of carriage is despatched usually in the form of unslaked lime, because after slaking it expands about 40 per cent. in bulk. It is, however, occasionally slaked, the proportion of wagons containing slaked lime to wagons containing unslaked being about 1 in 10. The process of burning in the non-continuous type kiln is not very different from that employed with the continuous type and some of the smaller companies using this type of kiln claim that their coal consumption is only 1 part of coal to about 10 of lime. This statement, however, should be accepted with reserve.

3. The limestone trade is enjoying great prosperity at present. There is a great demand for lime especially for building purposes in Calcutta and large prices are being paid. A perusal of the "Trade carried by rail and river" returns shows that in 1920-21 over 3 million maunds of chalk and lime were exported from this province of which over 1½ million maunds went to Calcutta. Last year it was estimated that there were not more than 5,000 men, women and children employed in this industry. At Banjari about 700 including 300 residents and at Murali about 1,000 including 300 residents are said to be employed. At Dehri the Kalyanpur Lime Co. employ about 300 to 500 but an additional number work at their quarries. Both the mixing and burning operations are carried out by contractors. Messrs. Octavius Steel for instance employ one contractor for the whole of their work at Banjari and Murali. In the quarries the majority are on fixed pay; in 1921 the men were earning 6 annas, women 4 annas and children 2 annas to 3 annas a day. Only men engaged in boring holes for explosives are on contract; in 1921 they appeared to earn about 8 annas to 9 annas for 4 to 5 hours' work. At Banjari and Murali the resident labour is employed at the kilns and that from the surrounding villages in the mines. The castes chiefly employed are Nonias, Mullahs, Dosadhs and Chamars. Nonias specialise in kiln work on which they earn 7 to 8 annas a day. The men who load the kilns are on piece rates as are the women and children engaged in loading the wagon and picking over the burnt lime. The wages are said to be 7 to 8 annas, 4½ annas and 2½ annas respectively. In the cold weather they work from 9 A.M. till 1 P.M. and then after a short break till dusk. In the hot weather the hours are said to be from 7 till noon and 2 to 5 P.M.

4. The Sone Valley Portland Cement Works is situated at Japla. These works were promoted jointly by the Associated Portland Cement Manufacturers and the Kent Portland Cement Co., Ld. The former company has, however, acquired the latter and has formed a private Indian company which has taken over the new works. The works are situated 3 miles from the Japla station on the Daltonganj Sone East Bank broad gauge branch of the East Indian Railway and they are connected with the East Indian Railway by a broad gauge line. The works have a capacity of 50,000 tons cement yearly. The

limestone is obtained from deposits south of Rohtas and is brought to Japla across the Sone by means of a ropeway of 47 piers capable of delivering 400 tons a day. Suitable clay is brought from near Daltonganj. The other requirements are gypsum (about 1,000 tons yearly which has to be brought from Rajputana) and similar quantities of iron ore or bauxite. The cement works are admirably situated for the large market east of the Sone as they have an advantage over all existing cement works in India equivalent to Rs. 7-8-0 a ton of cement. This sum is made up of Rs. 5 as freight from Katni (nearest existing works) to Sone East Bank and Rs. 2-8-0 (for the same distance but in the reverse direction) saving in freight of half a ton of coal which is required for each ton of cement.

5. There is thus undoubtedly scope for other cement companies in the Sone Valley, provided there is sufficient demand. The Sone Valley Portland Cement Co., is one of the best, if not the best, cement companies in India. It has at its disposal the technical knowledge and experience of the Associated British Portland Cement Manufacturers and the cement produced by it is equal if not superior, to that produced by any other Indian company and also to the latest British standard specification. Indian cement companies are however unable at present to command the same prices as foreign companies, owing to the prejudice which exists against goods "made in India."

6. The following is a brief description of the manufacturing process employed in the new cement works. Limestone is brought over the Sone by means of ropeways extending for a distance of about 5 miles. It is delivered on to a platform and from there is fed into 2 crushing machines in succession emerging from the second crusher in cubes about ¼″ in size which are then, by means of bucket elevators, discharged into a large storage hopper. The clay is brought from Daltonganj by rail. It is crushed and then, by means of a bucket elevator, deposited into a smaller hopper situated alongside the one for limestone.

7. From these 2 hoppers crushed limestone and clay are automatically fed and in correct proportion into a ball mill and there, by the addition of water reduced to a thick cream. From this ball mill the cream or slurry is elevated and gravitated into tube mills where the final raw grinding of the mixture takes place. The mixture is once more elevated and delivered into circular storage tanks provided with automatic stirrers and from these it is pumped into a rotary kiln 8′ dia. at one end and 10′ dia. at the other and 200 ft. long inclined slightly (1in30) to the horizontal with a chimney connected to the higher end where it undergoes calcination. The fuel used is coal which is first dried in a cylindrical dryer by means of hot air and then elevated and delivered into a tube mill where it is pulverised into a fine powder. It is then delivered into a hopper situated over the lower end of the aforesaid 200 feet kilns and at the opposite end to the chimney in order to be calcined.

8. The liquid mixture or slurry is fed into the upper end of the slowly revolving kiln and slowly gravitated to the lower end. The powdered coal is injected into the lower end of the kiln in carefully regulated proportions by means of an air blast thus forming an explosive mixture which on combustion produces an intense heat (about 2,500° F). The chimney draws this combustible mixture through the kiln and during its passage it meets the descending slurry which thus undergoes a thorough calcination being ultimately discharged at the lower end in the form of clinker. This clinker is then passed through a cooler (a rotary tube) which reduces its temperature until it is capable of being handled. After cooling, the clinker is deposited in a trench and then by means of a conveyor, delivered to a storage shed where it is deposited at any desired spot by means of a belt conveyer. The clinker which is now in the form of ½″ cubes is then discharged by means of an underground tunnel and conveyed to a grinding mill where it is reduced to a certain fineness and then in succession to two further mills for the final grinding. The material which is now finished cement is then elevated and stored in a high cylindrical silo.

9. The power for the whole of the works is derived from three Babcock and Wilcox boilers which supply steam to two steam-turbo generating sets of 1,250 and 500 kilometers capacity. Normally the larger set will work but when the full output is not required or in case of emergency the smaller set will be available. The current which is 3 phase is generated at 500 volts and is distributed to motors located in the works thus driving the whole of the plant.

10. In addition to the above works there are 2 other so-called cement works in this province—one the Jhajha on the East Indian Railway main line and the other the Orissa Cement Co., at Garh Madhupur on the Bengal Nagpur Railway. Neither company manufactures Portland Cement but they turn out a good quality of hydraulic lime or natural cement, which is intermediate between lime and Portland Cement. The Jhajha Company has gone into liquidation and its assets have been bought up by a Bengali gentleman. The Orissa Cement Company is at a very low ebb and continues to make losses every year. The company had an idea at one time of making Portland Cement but it has come to nothing.

11. The natural advantages which the cement industry in this province possesses may be summed up as follows:—

(1) High grade lime occurs in close conjunction with first class coal. This advantage will become even greater when the new line from Karanpura to Daltonganj has been completed. The cement works in the Central Provinces have either to use second class or bring first class coal from Jharia coalfields and I believe choose the latter alternative.

(2) As explained above, the cement works situated in the Sone valley have a great advantage over all cement works to the west for the whole area lying to the east, including Calcutta.

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Statement II.—Replies to questionnaire (2) (b).

(*Letter dated the 17th September 1924.*)

With reference to your letter No. 679, dated the 28th July 1924, I am directed by the Government of Bihar and Orissa in the Ministry of Local Self-Government, to reply as follows to the five questions in paragraph 5 of the letter in connection with the cement industry in India.

(1) Cement is ordinarily used only when other materials would be unsuitable, hence it is not considered likely that any substantial increase in consumption can be expected if the current price remains stationary.

(2) For the reason given above, fluctuation in price would not be likely to have much effect on the consumption.

(3) No. Before serious competition sets in the price of cement would have to come down 30 per cent. at least.

(4) Yes. The quality of both Central Provinces and Bihar and Orissa cement has been found to be excellent. The Indian article has ousted the European articles in this province.

(5) This province is not now faced with the question of storage for long periods of large quantities of cement, the sources of supply being so close at hand. The method of packing, therefore, is not of much importance.

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Witness No. 19.

GOVERNMENT OF THE UNITED PROVINCES.

Statement I.—Letter from the Government of the United Provinces, dated the 13th August 1924, in reply to questionnaire (2) (a).

I am directed to refer to your letter No. 468, dated June 10th, 1924, in which the Tariff Board asked certain questions about the cement industry in this province.

2. The answers to the questions are as follows:—

(1) There are no cement factories in the United Provinces at present.

(2) As explained in the reply to Question (5) below, this province apparently has natural advantages for the manufacture of cement, though no one can say to what extent they will be utilised in the near future.

(3) No concessions have been granted.

(4) No royalties have been imposed.

(5) Bulletin No. 30 published last year in the series entitled "Bulletins of Indian Industries and Labour" shows what natural advantages the United Provinces have for the manufacture of cement. Investigations which this Government undertook in 1920, when they were considering whether they should themselves manufacture the cement required for the Sarda Canal, confirmed the opinions set forth in that Bulletin, which Dr. Watson and Mr. Hallidy formed as to the existence of deposits suited for cement making. The record of these investigations is not detailed or complete, but copies can be supplied, if the Tariff Board desire. The two principal deposits are of marl at Dularmau and Madharmau in the Lucknow District, and at Chichauli in Rae Bareli District, and the Provincial Director of Industries writes about them as follows:—

> The material (marl) is found at Dularmau in pockets up to 50 chains long, and from 200 to 1,500 feet wide and from 3 to 14 feet thick. It lies under a bed of clay from 4 to 12 feet thick. Several samples were examined to ascertain the percentage of calcium and magnesia in them. According to Mr. Hallidy calcium was always above 42 per cent. and magnesia about 1·6 per cent. The percentage of magnesia is very important, because no engineer would use cement which contains a high percentage of magnesia; the British standard is 3 per cent. and the American 4 per cent.

Dr. Watson has recently completed his investigation into the possibilities of manufacturing cement from Kankar and other materials. The Dularmau deposits attracted his attention, and he examined several samples. His results show that $CaCO_3$ was from 71 per cent. to 89 per cent. and magnesia up to 2·1 per cent.

Clay, which is an essential ingredient of cement, is found over the deposits of marl at Dularmau. Dularmau clay contains more than 3 per cent. of magnesia, but, according to Dr. Watson, this defect can be remedied by washing the ground mixture of marl and clay.

The fields at Dularmau and Madharmau contain about 74,000,000 cubic feet of marl, which can produce 1,295,000 cubic feet of cement and can thus feed a factory producing 100 tons daily for 40 years. The marl deposits are exceptionally good, and a factory might succeed, provided the demand for cement rises substantially. Coal alone would have to be imported. Means of communication are easy, and the railway station can be easily approached.

" Very good marl deposits exist in the lake at Chichauli, near Lachmanpur railway station, in the lake at Lachmanpur itself, and in a mango grove near Chichauli; all these places are in the Dalmau tahsil, of the Rae Bareli District. The deposits of Chichauli *jheel* were tested by Messrs. Briggs & Co. of Calcutta at the instance of the Thakur Sahib of Narendrapur Charhar, and also by a continental expert at the instance of Messrs. *Zaman* & Co. of Lucknow. Messrs. Zaman & Co. wanted the lake on lease, and offered Rs. 5,000 per annum to the Talukdar, but the project did not materialise. The Thakur Sahib is anxious to work up the deposits, and this year borings have taken place under the immediate supervision of a chemist sent by Dr. Watson. If the samples show a low percentage of magnesia or if the percentage of magnesia can be reduced by other means, and if the quantity available at the three places is proved to be enough for a factory, the Thakur Sahib proposes to float a company to work up the deposits."

(6) The Public Works Department, Irrigation Branch, will need roughly 1,200 to 1,500 tons of cement annually for about the next four years, while the Sarda Canal is under construction; and the Buildings and Roads Branch require about 300 tons annually. If, however, the price of cement is reduced to a figure at which it can compete with lime, *i.e.*, to about Rs. 20 per ton roughly, the demand for it will increase very largely, though to what extent cannot be stated.

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Statement II.—Replies to questionnaire (2) (b).

(Letter dated 4th October 1924.)

With reference to your letter No. 679, dated the 28th July 1924, addressed to the Secretary to Government, United Provinces, Public Works Department, Buildings and Roads Branch, on the subject of the evidence of the applicants for protection, recorded by the Tariff Board during their enquiry into the cement industry, and asking for the assistance of this Government in examining certain aspects of the case, I am directed to reply as follows to the questions asked in paragraph 5 of your letter:—

2. *Question 1.*—If prices remain at their present level there is not likely to be any further appreciable increase in consumption.

Question 2 (a).—Any increase in present cost would stop growth of consumption.

(*b*) A 10 per cent. increase would certainly stop all growth of consumption.

(*c*) Anything above 10 per cent. would mean a decrease in consumption.

Question 3.—At its present price cement cannot replace lime in the works constructed by the Irrigation Branch of these Provinces, because, although for the largest works lime has to be carried considerable distances, it is still cheaper than cement. It would begin to compete seriously with lime if prices *ex* factory fell to Rs. 25 or less per ton in which case consumption might be trebled. Further, if the price fell to Rs. 20 per ton, it would displace lime altogether and the cement consumption would be about six times what it is now.

Question 4.—It has been freely used. The quality is not always as good as English cement but by frequent testing a standard practically equal to English cement can be maintained. The presence of English cement in the market probably helps to keep up the standard of Indian cement.

Question 5.—Indian cement in bags does deteriorate in a damp climate so as to render it dangerous to store during the monsoons. But as it can be obtained in small quantities as required during the working season it is not necessary to store it for prolonged periods and deterioration can be avoided. It would, however, be well if manufacturers could supply it in steel drums when required to do so, the drums being returnable and a small charge only made for their use.

3. To sum up I am to say that the Irrigation Branch of these Provinces would gladly use Indian cement for all works in preference to lime which is often difficult to obtain and variable in quality, but it cannot do so till the price of cement is lowered and compares favourably with the price of lime.

Witness No. 20.

GOVERNMENT OF THE PUNJAB.

Statement I.—Letter, dated 24th July 1924, from the Government of the Punjab, forwarding replies to questionnaire (2) (a).

I am directed by the Punjab Government (Ministry of Agriculture) to reply *seriatim* to the points raised in your letter No. 468, dated 10th June 1924:—

(1) The only company at present manufacturing cement in the Punjab is Punjab Portland Cement, Limited whose works are at Wah in the Attock District. The agents of this Company are Messrs. Killick Nixon and Co. The delivery of Portland cement to Government Departments commenced in 1923.

(2) As far as this Government is aware three other firms have contemplated the establishment of cement factories in the Punjab, but have commenced no active operations.

(3) No concessions have been granted to Punjab Portland Cement, Limited in the matter of (*i*) land, (*ii*) exploitation of raw materials and (*iii*) utilization of fuel. An agreement has, however, been entered into between the Secretary of State and the Company under which, for a period of seven years, certain Government Departments will obtain from the Company at least one half of their requirements of Portland cement during each financial year. A copy of this agreement is enclosed.

(4) No royalty has been imposed.

(5) The natural advantages possessed by the province for the manufacture of cement were discussed in reports prepared in 1920 by Dr. O. J. Corellie, a cement expert who carried out a tour in the Punjab. His final report was received with Government of India, Public Works Department, Memo. No. 504-M., dated 7th December 1920.

(6) The estimated demand for cement for irrigation and other public works during the next few years is:—

(*a*) *Irrigation.*

(*i*) *Canals now open.*—1,200 tons *per annum*.

(*ii*) *Sutlej Valley Project.*

For a period of four years ending 1926-27, 45,000 tons in all. This amount is being supplied by Punjab Portland Cement Limited at a concession rate of Rs. 33 per ton. In the absence of this concession rate requirements would have been limited to 2,000 tons.

For the period 1926-27 to 1930-31 requirements will amount to approximately 1,500 tons per annum at Rs. 42-8 per ton.

(*iii*) *New Projects.*—One or two new projects may mature within the next few years. Requirements will be governed by the market rate, but if cement can be obtained at about Rs. 30 per ton it will be possible to substitute it for lime, and on this basis annual requirements for new projects may be put at 4,000 tons per annum for 5 years from 1925-26.

(*b*) *Other Public Works.*—750 tons per annum. (This amount may easily be doubled if large projects mature.)

Enclosure.

ARTICLES OF AGREEMENT made and entered into this day of One thousand nine hundred and twenty-two BETWEEN PUNJAB PORTLAND CEMENT, LIMITED a Company registered under the Indian Companies' Act, 1913 and

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having its Registered Office situate in Bombay (hereinafter called "the Company") of the one part and THE SECRETARY OF STATE FOR INDIA IN COUNCIL (hereinafter called "the Secretary of State") of the other part. WHEREAS the Company is in the course of constructing and establishing works for the manufacture of Portland cement at or in the neighbourhood of Wah in the Attock District of the Punjab AND WHEREAS the Secretary of State has agreed to purchase Portland cement from the Company for the use and purposes of the Government of the Punjab from the date hereinafter mentioned and the Company has agreed to sell and supply such cement to the Secretary of State for the use and purposes of the said Government for the period at the rates and under and subject to the conditions hereinafter contained NOW THESE PRESENTS WITNESS AND IT IS HEREBY AGREED by and between the parties hereto in manner following that is to say :—

1. In this Agreement the following expressions shall unless excluded by or repugnant to the context have the following meanings namely :—

"The Company" shall mean and include Punjab Portland Cement, Limited and its successors and assigns;

"The Secretary of State" shall mean and include the Secretary of State for India in Council and his successors in office and assigns;

"The Government" shall mean the Government of the Punjab and shall include the Irrigation Branch, Punjab, Public Works Department; Roads and Buildings Branch, Punjab, Public Works Department, the Director of Industries, Punjab, the North-Western Railway throughout its length and the Military Works Services, Northern Command.

"The Company's works" shall mean the works of the Company situated at or in the neighbourhood of Wah in the Attock District of the Punjab;

"The cement" shall mean the Portland cement the subject of this Agreement manufactured by the Company at its said works.

2. This Agreement shall come into operation on the first day of April following the date on which cement is first available for sale by the Company and shall continue for the period of seven years therefrom Provided that all notices and intimations required to be hereby given for the Financial year commencing with the first day of April aforesaid shall be given as if this Agreement were in force from the date hereof.

3. During the period of this Agreement the Secretary of State will purchase and take from the Company during each Government Financial year and the Company will sell and supply to the Secretary of State during each such year cement equal to at least one half of the quantity of Portland cement required by the Government for their respective works including Imperial and contribution works done or constructed by the Government on the terms and conditions hereinafter contained.

4. The Company will also supply to the Secretary of State during each Government Financial year for the use and purpose of the Government any quantity of cement over the said minimum of one-half of the said annual requirements which may be required by the Government but subject to a maximum of twenty thousand tons Provided that in the event of the Company's plant being extended so that the present estimated outturn of forty thousand tons is increased the quantity of twenty thousand tons above named shall be correspondingly increased in proportion to the increased outturn capacity of the plant.

5. The Government will notify to the Company in writing by the first day of January in each year the approximate probable total requirements of the Government of cement from the Company during each month of the next Government Financial year. By the first day of April next following in each year the Government will give to the Company intimation in writing of the actual requirements of cement by the Government in each month of the Financial year. The actual quantity of cement ordered by the Government

during each month shall not vary beyond twenty five per cent. of the quantities mentioned in the intimation aforesaid.

6. Notice shall be given by Government so as to reach the Manager of the Company's works not later than the fifteenth day of each month of the quantity of cement actually required to be delivered during the next calendar month and every such notice shall be accompanied by despatching instructions in such form and containing such particulars as the Company may from time to time require. A duplicate of each such notice with a duplicate of the despatching instructions shall be sent by Government to Messrs. Killick Nixon and Company (the Agents of the Company) at the address of the Company's Registered Office in Bombay by the same post as the original notice and instructions are despatched.

7. Any portion of the quantity of cement mentioned in Clause 4 hereof delivered by the Company to the North Western Railway shall be used by the North Western Railway exclusively for Railway purposes upon works on that Railway system and any portion of the said quantity of cement delivered by the company to the Military Works Department shall be used by the Military Works Department, except in case of Military emergency, for their own purposes and in connection with works in the area included in the Northern Command.

8. No cement supplied by the Company hereunder shall be sold by the Secretary of State or the Government except to contractors working for the Government and to be used for the works of the Government.

9. The price to be paid to the Company for all cement supplied hereunder shall be as follows :—

(*a*) During first year of the operation of this Agreement Rupees Forty-two and annas eight per ton.

(*b*) For the remainder of the period of this Agreement a price not exceeding Rupees Fifty per ton based upon the actual cost of manufacture to the Company during the Company's preceding Financial year *plus* a percentage on the Block Capital of the Company (as hereafter defined) of fifteen per cent. or such less percentage calculated with reference to the actual cost of manufacture as may be arrived at in accordance with the following sliding scale :—

SLIDING SCALE.—For every Rs. 2 increase in the manufacturing cost over Rs. 30 per ton a reduction of 1 per cent. from the 15 per cent. on such Block Capital, *viz.* :—

	Per cent.
Up to and including Rs. 30	15
Over Rs. 30 and up to Rs. 32	14
Over Rs. 32 and up to Rs. 34	13
Over Rs. 34 and up to Rs. 36	12
Over Rs. 36 and up to Rs. 38	11
Over Rs. 38 and up to Rs. 40	10
Over Rs. 40 and up to Rs. 42	9

or such smaller percentage as when added to the manufacturing cost shall bring the price to be paid by the Government up to the maximum of Rs. 50 hereinbefore mentioned.

The " Block Capital " of the Company for the purposes of this Agreement shall be deemed to be the capital for the time being issued and paid up at the date of the last annual Balance Sheet of the Company to which shall be added such sums transferred from the reserve funds of the Company as have at that date been expended by the Company on capital account Provided that only such sums which have been transferred from reserve funds shall be deemed to be capital expenditure as have been expended on extensions and improvements and not such sums as have been expended on replacements.

The "Cost of Manufacture" for the purposes of this Agreement shall be deemed to include all expenditure and charges on revenue account including *inter alia* works supervision repairs maintenance interest charges on debentures and loans all royalties taxes and cesses *plus* a fixed charge of Rupees three per ton for administration charges (administration charges to include Directors' and Auditors' fees Managing Agents' remuneration Bombay Office rent and establishment printing stationery postages and telegrams) *plus* depreciation at the rates scheduled by the Income-Tax Department as allowed for buildings plant and machinery and otherwise.

The Company will give intimation in writing to the Secretary of State by the end of February each year of the rate per ton of cement calculated as aforesaid which will be chargeable during the next Financial year.

10. With a view to the ascertainment of the price to be paid by the Secretary of State under Sub-Clause (*b*) of the last preceding clause the following provisions shall have effect, namely :—

(*a*) The Accounts of the Company shall be made up to the thirty-first day of December in each year.

(*b*) The issued capital of the Company shall not be increased beyond Rupees Thirty-five lakhs without the sanction of the Secretary of State.

(*c*) The Secretary of State shall be entitled to inspect the books of account of the Company and to require such information from the Company as the Secretary of State may consider necessary from time to time which information the Company shall furnish.

11. The prices rates and weights mentioned in Clause 9 hereof shall in all cases be for delivery free on rails at the Company's works and shall be exclusive of bags. Railway weights shall be accepted by both parties as final and conclusive. The date of the Railway Receipt shall be taken to be the date of delivery.

12. The quality of all cement supplied hereunder shall conform to the British Standard specification and the Secretary of State shall be entitled to cause tests to be made as the Secretary of State shall consider necessary or proper. Any cement supplied below such specification shall be rejected and the Company shall supply cement according to such specification in place of the cement so rejected. In the event of any dispute as to quality the same shall be referred to the Officer for the time being in charge of the Government Test House at Alipur. The decision of such Officer shall be final and conclusive between both parties.

13. Unless prevented by exceptional circumstances all bills of the Company for cement supplied under this Agreement shall be paid within forty-five days of the delivery of the cement on rail at the Company's works. Bills for supplies made by the Company to the North-Western Railway and/or the Military Works Department shall be presented direct to the party to which the supply is made and shall be paid within the same time as aforesaid. All other bills shall be presented to the Officer of the Government named in Clause 17 hereof.

14. The Company shall not be liable for any delay short delivery or failure to supply which may be caused by reason or on account of or be contingent upon the act of God or the King's enemies plague famine pestilence or epidemic sickness earthquakes free storms or floods restrains of Rules Princes or peoples war mutiny riot or disturbance strikes or lock out of workmen shortage or stoppage of labour breakdown of or accident to machinery for plant from whatever cause arising Railway restrictions or the failure on the part of Railways to supply wagons failure or shortage in supply of coal or other materials required for the purposes of manufacture directly or indirectly affecting the performance of this Agreement or any other circumstances of any kind whatsoever beyond the control of the Company Provided that in the event of such delay short delivery or failure to supply the Secretary of State shall have the option either to extend the period for supply or to cancel the contract in respect of the quantity undelivered during such period. Such option shall be

declared in writing within seven days of receipt of notice from the Company of its inability to supply or deliver cement as required hereunder.

15. Unless it shall be found that during the last two years of the Agreement the price to be paid by the Secretary of State under the terms of Clause 9 hereof does not allow to the Company a margin of fifteen per cent. on Block Capital above actual cost of manufacture the Secretary of State shall have the right to renew this Agreement for a further period of seven years from the date of the expiration of seven years herein named on giving to the Company notice in writing not less than six calendar months previous to the date of the expiration of the term of seven years herein named and on the giving of such notice this Agreement shall be renewed accordingly upon the same terms and conditions as are herein contained.

16. During the period of this Agreement or any extension thereof the Secretary of State shall be entitled to nominate one Director of the Company.

17. All notices by the Company shall be deemed to be duly given if in writing addressed to the Chief Engineer to the Punjab Government, Buildings and Roads Branch, and despatched to him by registered post to the seat of the Punjab Government for the time being. All notices consents and approvals by the Secretary of State to the Company (not being notices for which provision is made by Clause 6 hereof) shall be in writing and shall be despatched by registered posts to the Company to its Registered Office in Bombay. Every notice sent by post shall be deemed to have been delivered upon the expiration of forty-eight hours after the same shall have been put in the post.

18. In the event of any dispute or difference at any time arising between the Company and the Secretary of State or the Government in respect of this Agreement or the several matters specified herein or with reference to anything arising out of or incidental thereto such dispute or difference shall save as otherwise herein provided be submitted to the arbitration of two Arbitrators one to be nominated in writing by each party which Arbitrators shall appoint in writing an Umpire before taking upon themselves the burthen of the reference. The award of the Arbitrators or in case of their not agreeing the award of the Umpire shall be conclusive and binding on the parties.

IN WITNESS whereof the Common Seal of PUNJAB PORTLAND CEMENT, LIMITED has been hereunto affixed and under the authority of the Punjab Government one of the Secretaries to the said Government has for and on behalf of the Secretary of State for India in Council hereunto set his hand and seal the day and year first above written.

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THE COMMON SEAL OF PUNJAB PORTLAND CEMENT, LIMITED was hereunto affixed pursuant to a Resolution of the Directors of the Company passed at a Meeting of the Board held on the day of One thousand nine hundred and twenty-two in the presence of—

DIRECTORS.

AGENTS.

SIGNED, SEALED AND DELIVERED by one of the Secretaries to the Government of the Punjab in the presence of—

Statement II.—Replies to questionnaire (2) (b).

(Letter dated 25th September 1924.)

I am directed to refer to your letter No. 679, dated the 28th July 1924, and to say that the opinion of the Punjab Government upon the points raised in paragraph 5 is as follows:—

(*i*) The Punjab Government is obtaining cement from the Punjab Cement Company at Wah at two different rates, *viz.*, Rs. 42-8 per ton for general purposes and Rs. 33 per ton a special rate for Sutlej Valley Irrigation Project, both f.o.r. Wah. The contract for the latter expires in 1927, after which there will be decrease in consumption on the Sutlej Valley Project unless this special rate is extended for a further period, in which case the present rate of consumption will continue and may increase if the Thal Irrigation Project is taken in hand. For general purposes, at the rate of Rs. 42-8 per ton f.o.r Wah, increase in consumption will be gradual but not, in the opinion of this Government, substantial.

(*ii*) (*a*) Any increase.

(*b*) An increase in the cost of local cement bringing the price up to the level of imported cement would possibly stop the growth of the consumption of local cement.

(*c*) An increase in the cost of local cement bringing it at above the present price of imported cement would normally produce a decrease in the consumption.

(*iii*) At the present price for general purposes, *i.e.*, Rs. 42-8 per ton f.o.r. Wah, the Punjab cement cannot economically replace lime. At a price of about Rs. 30 per ton f.o.r. Wah cement would begin seriously to compete with lime.

(*iv*) The reply to both the parts of this question is in the affirmative.

(*v*) Any cement will deteriorate in course of time if stored in bags, and also if stored in barrels; but in the latter case the rate of deterioration is less rapid. At present the difference of price between local and imported cement discounts the advantage which the latter has in the matter of packing. This Government has no data upon which to assess the average loss in the two cases through deterioration and therefore to determine by how much the price for cement in barrels can exceed that of cement in bags without increasing the total cost, but probably by not more than ten per cent.

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Witness No. 21.

CHIEF ENGINEER, PUBLIC WORKS DEPARTMENT, DELHI PROVINCE.

Replies to questionnaire (2) (b).

(Letter dated the 25th September 1924.)

With reference to your letter No. 679, dated the 28th July 1924, I submit the following information and remarks:—

I find it somewhat difficult to reply categorically to all the questions put for the reason that the price of lime varies and frequently does not vary in the same ratio or even in the same direction as the price of cement. An Engineer often arrives at a decision to use one or other of the materials which is perfectly sound on the prices prevailing at the time he makes his decision but subsequent changes in prices may subsequently render his decision uneconomical. A decision on such a point having once been reached, there are often difficulties in the way of revising it, and it would sometimes be obviously impossible to do so. For instance, with the price of cement prevailing at the present time, the design of some of our roofs which were partially constructed, would probably have been quite different, but having been built on what was at that time the cheapest and most economical design, it is quite impossible now to change it without getting all the roof levels and consequently the drainage upset.

We are now being supplied with Indian cement at Rs. 41 per ton f.o.r. our works sidings at Barakhamba and at this price cement is not likely to oust lime in the case of works and places where lime can be used.

Our figures show that with lime at Re. 1 per maund and cement at Rs. 35 per ton, the relative cost per cubic foot of mortar giving approximately the same strength is Re. 0-5-5 and Re. 0-6-7 for lime and cement mortar respectively. It, therefore, follows that in order to compete with lime mortar in Delhi the price of cement must be considerably lower than Rs. 35 per ton. There are certain purposes and situations in which cement must be used, *e.g.*, reinforced work and work under water. Within reasonable limits cost does not come into consideration in the latter case, but in the first named case it often decides the question whether in a large building, such as a mill or warehouse, the construction should be of reinforced concrete or of brick or stone in lime mortar.

With cement at its present price, we are making more use of it than we did when it was Rs. 55 to Rs. 60 per ton. I think that taking our local conditions into account the extent to which we use cement at the present time would be very much the same if the price were Rs. 45 per ton. If it rose above that figure I think there would be a check on consumption and as the price rose from Rs. 55 upwards, there would probably be a decrease in consumption.

For sometime past we have been using Indian cement only for public works in Delhi. I may say that since these works were started we have only used imported cement where there has been any doubt as to the possibility of our obtaining the required quantity of Indian cement. We call for tenders for the supply of cement and we specify that it should be up to British Standard Specification for quick, medium or slow setting as the case may be. Consignments are tested as they arrive and any consignment not up to the specification is at once rejected. Our experience of Indian cement on this project has been that the standard of quality is equal to that of cement imported from Europe. In this connection I may say that during the 37 years I have been engaged on works in India, I have often found that cement imported from Europe deteriorates on the voyages and I have, on several occasions, had reason to complain to the Director General of Stores in England regarding the unsatisfactory quality of the cement despatched. Enquiry has proved, however, that when the cement was despatched it was up to the British Standard Specification. The deterioration takes place during the time the cement is on the ship before it reaches the Indian port of delivery. We have not found that Indian cement is liable to deterioration if it is packed in bags and not in barrels if care is taken to see that the bags are suitable and properly tarpaulined or put in a closed wagon. I cannot see why on this ground preference should be given to imported cement, even if prices were higher.

As I have mentioned before, I have known of several cases where consignments of cement from Europe which were packed in barrels and which have deteriorated on the voyage. Indian cement, properly packed and tarpaulined or loaded in a closed wagon is, in my opinion, not as likely to deteriorate on a comparatively speaking short railway journey as English cement is on its voyage from Europe to India. There are certain well-known Indian Companies whose quality of cement, so far as my experience goes, does not fall below the British Standard Specifications and whose standard of manufactured cement is very uniform. They cannot have anything no fear from imported cement unless they are over-capitalized of mismanaged or both over-capitalized and mismanaged.

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Witness No. 22.

DIRECTOR GENERAL OF COMMERCIAL INTELLIGENCE, CALCUTTA.

(*Letter dated the 29th November 1924.*)

With reference to your letter No. 1278, dated the 24th November 1924, on the above subject, I have the honour to enclose a statement showing the quantity of Portland cement imported into each maritime province of British India by sea from abroad during the six months (April to September) 1924 and 1923 and in the year 1923-24.

I am to add that figures for October 1924, are now available and will be supplied, if required.

Imports of Cement.—" Portland " into each maritime province of British India by sea from abroad during the six months (April to September) 1924 and 1923, and during the year 1923-24.

Imports into.	SIX MONTHS APRIL TO SEPTEMBER.		Year (April to March). 1923-24.
	1924.	1923.	
	Tons.	Tons.	Tons.
Bengal	15,889	17,774	43,694
Bombay	3,522	6,820	11,724
Sind	5,799	3,107	9,401
Madras	11,721	7,984	21,298
Burma	16,033	11,640	26,341
TOTAL .	52,964	47,325	112,458

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Witness No. 23.

INDIAN STORES DEPARTMENT.

WRITTEN.

(1) STATEMENTS RECEIVED FROM THE CHIEF CONTROLLER OF STORES, INDIAN STORES DEPARTMENT.

Statement I.—Abstract of tenders for 312 tons cement for Eastern Command (*June 1924*).

Tender No. N.-670.	Name of firm and place.	Messrs. Balmer Lawrie & Co., Calcutta.	Allen Bros. & Co., Simla.	Bhanamal Gulzari Mal, Delhi.	Martin & Co., Calcutta.	Bird & Co., Simla.	REMARKS.
	Price F.O.R.	Jukehi * (E. I. R.).	Keymore.*	Banmore (G. I. P.).	Japla (E. I. R.).	1. Bareilly. 2. Dehra Dun.	
Cement in 1 cwt. bags =312 tons.		Rs. 28-8-0 per ton.	Rs. 29-12-0 per ton.	Rs. 30 per ton.	Rs. 34 per ton.	1. Rs. 45 per ton. 2. Rs. 54 per ton.	
Estimated cost Rs. 60 per ton.		Jubbulpore "Lotus" brand.	"Swastika" brand, by the C. P. Portland Cement Co., Ltd.	"Sun" brand, by the Gwalior Cement Co., Ltd.	"Rohtas" brand, by the Sone Valley Portland Cement Co., Ltd.	"B. B. B." brand, by Bundi Portland Cement Co., Ltd.	
		From stock.	*Immediate ex-stock.*	*Immediate.*	*Immediate.*	*Immediate.*	

* Same district.

Statement II.—Price of Belgian Cement.

(Copy of contract below.)

Cement, best Portland (Belgian).

	£	s.	d.
Price f.o.b. Antwerp per ton	1	15	3·36
Freight	0	16	6
Interest and Insurance	0	0	3·88
Freight Brokerage	0	0	3
Landing and wharfage charges	0	4	0
	2	16	4·24
In Rupees	42	4	3
Customs duty	9	0	0
Price c.i.f. Rangoon Rs.	51	4	3

Copy of contract, No. C/1946/2199/11-5-23.

T. RYAN,
Director General.

Contractor's Name: Comptoir due Chaux & Ciments du Tournaisi.

Address: Societi Co-operative, Tournai, Belgium.

Form No. Branch No.

D. O. 2199. Home No. 584. To be delivered as ordered.

41.—Civil Works, Burma Provincial.

Per Burma Province P. W. D. Indent No. 3, dated 16th March 1923.

To be shipped to Rangoon, addressed to Superintendent of Stores, P. W. D., Burma. Shipment to commence immediately. To be shipped at the rate of 3,000 casks per month during October to February and 1,000 per month other months.

Item No.	Description of Stores.	Quantity required.	Rate per	Total per item delivered free on board in the Port of Antwerp.
	OIL BRANCH.	Casks.	Cask.	
4	Cement, best Portland	20,000	31·50 francs (Belgian).	630,000 francs (Belgian). 100 francs = £1-0-0.

The cement is to be shipped at the rate of 1,000 casks per month, from May to September, and at the rate of 3,000 casks per month, from October to February 1924. Shipment to commence immediately.

As per specification annexed which must not be detached.

Address:—$\overset{\uparrow}{\text{I}}$ P. W. D.,
Burma,
Rangoon.

Maximum limit of percentage of magnesia extended to 1·40 per cent.

The Secretary,
Department of Industries.

Extract paragraph 2 of demi-official letter No. 1247-M. E., dated the 5th September 1923, from Mr. A. J. R. Hope, C.I.E., Secretary to the Government of Burma, Public Works Department, to Mr. D. G. Harris, Deputy Secretary to the Government of India, Department of Industries and Labour, Public Works Branch.

* * * * *

2. Can you tell me what is going to happen about the Stores Purchase Rules and the relations of the Local Government with the Director-General of Stores? I do not know what is happening over in London, but lately we have been having the most annoying interference. Also, we are being supplied with Belgian Cement which has been found quite useless on works although supported by very fine Test Certificates, and the Local Government has had to refuse to accept any further supplies. I think we have got to accept liability for compensation for breaking the contract and it has been suggested to the High Commissioner for India that he should dispose of the Cement in England and debit the Local Government with the difference There are many similar cases and I think the Local Government will shortly have to address the Government of India on this matter.

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Statement III.—Prices of English Cement.

(*i*) (Reference copy of contract below.)

CEMENT AT 8/10½ PER CASK.

	£	*s.*	*d.*
Per ton f.o.b. English Port	2	9	8·4
Freight	0	16	6
Interest and Insurance	0	0	5·5
Freight Brokerage	0	0	3
	3	6	10·9
Landing and wharfage	0	4	0
	3	10	9
=Rs.	53	3	0
Customs duty at 15 per cent. Tariff valuation Rs. 60 per ton . Rs.	9	0	0
Rs.	62	3	0

Copy of Contract, No. D/1736/3049/24-5-24.

S. PADDON,
Acting Director General.

Contractor's Name: T. Beynon & Co., Ltd.
Address: 9/13, King William St., London, E. C. 4.
Form No. Branch No. To be delivered promptly from stock.
D. O. 3049. Home No. 869. 192 .
41.—Civil Works—Central.
Per Agent to Governor General in Baluchistan and Chief Commissioner of Baluchistan, telegram No. 1597/4987, dated 8th May 1924.
To be shipped to Karachi as shown Very urgently required.

Item No.	Description of Stores.	Quantity required.	Rate per	Total per item delivered free on board in the Port of Bristol Channel.
	OIL BRANCH.	Casks.	Cask.	
			s. d.	£ s. d.
..	Best Portland Cement, *to be packed in casks definitely to I. S. D. Pattern No. 1190.*	315	8 10½	139 15 8

As per specification annexed, which must not be detached.

Address:—↑ Agent to Governor General in Baluchistan, Karachi.

The earliest possible date for delivery must be stated, as the above stores are very urgently required.

Chief Controller of Stores,
Indian Stores Department.

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(*ii*) (Reference Copy Contract below.)

Cement at 8/9 per cask.

	£	s.	d.
Per ton f.o.b. English Port	2	9	0
Freight	0	16	6
Interest and Insurance	0	0	5·39
Freight Brokerage	0	0	3
	3	6	2·39
Landing and wharfage	0	4	0
	3	10	2·39
= Rs.	52	10	5
Customs duty at 15 per cent. Tariff valuation Rs. 60 per ton . . . . Rs.	9	0	0
Rs.	62	3	0

Copy of Contract, No. D. 1324/1542/25-4-24.

S. PADDON,
Acting Director General.

Contractor's Name: The Cement Marketing Co., Ltd.

Address: 8, Lloyds Avenue, E. C. 3.

Form No. 3. Branch No. To be delivered by 3 weeks.
D. O. 1542. Home No. 503. 192 .

41.—Civil Works, Burma Provincial.

Per Burma Province, P. W. D. Indent No. 1 of 1924-25.

To be shipped to Rangoon, addressed to the Superintendent of Stores, P. W. D., Burma, Rangoon.

Required in instalments as shown.

Item No.	Description of Stores.	Quantity required.	Rate per	Total per item delivered free on board in the Port of London.
	OIL BRANCH.	Casks.	Cask.	£ *s.* *d.*
..	Cement, best Portland . .	10,000	8/9	4,375 0 0
	(British Cement only will be accepted.)			
	Casks to be lined with waterproof paper.	In casks to W. O. pattern.		

As per specification annexed which must not be detached.

Samples of paper to be submitted at time of tendering.

Address:—↑ P. W. D.,
Stores,
Rangoon.

It is essential that shipment be made at the rate of 2,000 casks per month during May, June, July, August, and September 1924.

N.B.—If you are unable to tender, please return these forms at once.

Chief Controller of Stores,
Indian Stores Department.

COPY OF AMENDMENT TO CONTRACT.

205

D. O. 2205/24.
23rd May 1924.

GENTLEMEN,

With reference to your tender, dated 8th May, 1924, for 78 casks of cement, I shall be glad if you will add this quantity to your Contract D. 1324/1542/25th April 1924, at the price of 9*s.* 1*d.* per cask.

The amount of the contract is accordingly increased by £35-8-6.

The cement is to be supplied in casks in accordance with I. S. D. Pattern No. 1190.

Kindly acknowledge the receipt of this letter.

I am, Gentlemen,

Your obedient servant.

R. R. HOWLETT,
On behalf of the High Commissioner for India.

Messrs. The Cement Marketing Co., Ltd.,
8, Lloyds Avenue, E. C. 3.

S. PADDON,
Acting Director General.

Form No. 3.

D. O.'s 2205/7.

27.—Ports and Pilotage, Burma Provincial.

Home No. 651. Per Principal Port Officer, Burma, Rangoon, Indent No. 8, dated 10th March 1924.

Home No. 652. Per Marine Transport Officer, Mandalay, Indent No. 13, dated 10th March 1924.

Home No. 654. Per Port Officer, Burma, Rangoon, Akyab, Indent No. 15, dated 10th March 1924.

Item No.	Description of Stores.
	Oil Branch.

Stores as per Schedule annexed.

Home No. 651.—Rangoon for Principal Port Officer, Burma, Rangoon. To be packed separately from stores on Burma Port Officer's Indents.

H. Nos. 652/4.

Home No. 652 to be shipped to Rangoon, ultimate destination Mandalay Shore. To be addressed to Marine Transport Officer, Mandalay, C/o Agent for Government Consignments, Civil Department, Rangoon.

To be packed separately from stores on Burma Port Officer's Indents H. Nos. 651, 653/4.

Home No. 654 to be shipped to Rangoon, addressed to Port Officer, Akyab, C/o Agent for Government Consignments, Civil Department, Rangoon.

To be packed separately from stores on Burma Indents H. Nos. 651/3.

All required during 1924-25.

Chief Controller of Stores,
Indian Stores Department.

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Item No.	Description of Stores.	Quantity required.
	D. O.'s 2205/7.	
	Home No. 651.	Casks.
205	Cement, Portland	60
	Home No. 652.	
15	Cement, Portland	17
	Home No. 654.	
24	Cement, Portland	6

All as per specification annexed which must not be detached.

Addresses:—Home No. 651.—Principal Port Officer, Burma, Rangoon.
Home No. 652.—Marine Transport Officer, Mandalay, Rangoon.
Home No. 654.—Port Officer, Akyab, Rangoon.

Reference Copy Contract D. 1324/1542/25th April 1924.

Cement at 9/1 a cask.

	£	s.	d.
Per ton f.o.b. English Port	2	10	10·4
Freight	0	16	6
Interest and Insurance	0	0	5·6
Freight Brokerage	0	0	3
	3	8	1
Landing and Wharfage	0	4	0
	3	12	1
=Rs.	54	1	0
Customs duty at 15 per cent. Tariff valuation Rs. 60 per ton . . . . Rs.	9	0	0
Rs.	63	1	0

Copy of Contract, No. C/1736/1156/23-4-23.

T. RYAN,
Director General.

Contractor's Name: T. Beynon & Co., Ltd.
Address: 9/13, King William St., E. C. 4.
Form No. 3. Branch No. To be delivered as stated below.
D. O. 1156. Home No. 335. 192

Remittance Provincial and Local Funds, Madras.

For Madras Marine Department

Indent No.

dated 26th January 1923.

To be shipped to Cochin to address of the Storekeeper, Harbour Works, Cochin. Required to commence 1st May 1923. The Executive Engineer, West Coast Harbour Division, Cochin, to be notified of shipment.

Item No.	Description of Stores.	Quantity required.	Rate per	Total per item delivered free on board in the Bristol Channel Ports.
	OIL BRANCH.	Casks.	Cask.	£ s. d.
1	Portland Cement in casks, lined with waterproof paper, and each containing 400 lbs.	5,500	8/9	2,406 5 0

As per Specification annexed, which should not be detached.

Address:—↑ Harbour Works, Cochin.

Delivery to be made at the rate of 1,000 casks per month commencing by May 1st, 1923.

N.B.—If you are unable to tender please return this form at once.

The Secretary,
Department of Industries.

(*iii*) (*Reference Copy Contract below*).

Cement at 8/6 per cask.

	£	s.	d.
Per ton f.o.b. English Port	2	7	7·20
Freight	0	16	6
Interest and insurance	0	0	5·24
Freight Brokerage	0	0	3
	3	4	9·44
Landing and wharfage	0	4	0
	3	8	9·44
=Rs.	51	9	5
Customs duty at 15 per cent. Tariff valuation Rs. 60 per ton . . . . . Rs.	9	0	0
Rs.	60	9	5

Copy of contract, No. C/5891/7371/1-12-23.

S. PADDON,
Acting Director General.

Contractor's Name: T. Beynon & Co., Ltd.
Address: 9/13, King William St., E. C. 4.
Form No. 3. Branch No.

To be delivered by about 1 week.

D. O. 7371. Home No. 1719.
53.—State Railway, Central, E. B. R.
(Misc. Stores).
Per Agent's Indent No. 14, dated 10th April 1923.

To be shipped to Calcutta.
(Ultimate destination Calcutta and Halishahar.)
Required in India 1923-24.

Item No.	Description of Stores.	Quantity required.	Rate per	Total per item delivered free on board in the Bristol Channel Ports.
	OIL BRANCH.	Casks.	Cask.	£ s. d.
319	Cement, Portland, in casks, lined with waterproof paper.	1,250	8/6	531 5 0

As per annexed specification which must not be detached.

Address :—↑ E. B. Railway,
I
Calcutta.
Indent 14-23.

Chief Controller of Stores,
Indian Stores Department.

Statement IV.—Freight rates.

(i) Freight rates of Cement from works nearest Bombay to Bombay.

1. The Dwarka Cement Co., Ltd. Dwarka is a sea port.	Works in Dwarka. Information *re* sea freight rates is not available.
2. (*i*) The Bundi Portland Cement Co., Ltd. (*ii*) The Bundi Hydraulic Lime and Cement Company.	Works in Lakheri.
Railway Station Lakheri on the B., B. & C. I. Railway.	
Freight from Lakheri to Bombay 612 miles.	Rs. 13-7-6 *per* ton or 4·225 pies *per* mile *per* ton.
3. The Katni Cement and Industrial Co., Ltd.	Works in Katni.
Railway Station Katni on the E. I. Railway.	

Freight from Katni Cement Railway siding to Bombay. 673 miles.	Rs. 13-8-1 *per* ton or 3·85 pies *per* mile *per* ton.
4. The C. P. Portland Cement Co., Ltd.	Works in Kymore.
Railway Station Jukehi on the E. I. Railway.	
Freight from the Company's siding to Bombay. 697 miles.	Rs. 15-10-8 *per* ton or 4·31 pies *per* mile *per* ton.
5. The Jubbulpore Portland Cement Co., Ltd.	Works in Mahgaon.
Railway Station Jukehi on the E. I. Railway.	
Freight from the Company's siding to Bombay. 691 miles.	Rs. 15-6-8 *per* ton or 4·29 pies *per* mile *per* ton.
6. (*i*) The Gwalior Cement Co., Ltd (*ii*) The Indian Cement Co., Ltd.	Works in Banmor.
Railway Station Banmore on the G. I. P. Railway.	
Freight from Banmor to Bombay. 775 miles.	Rs. 6-12-10 *per* ton or 3·48 pies *per* mile *per* ton.

(*ii*) *Freight rates of Cement from works nearest Calcutta to Calcutta.*

1. Sone Valley Cement Co., Ltd.	Works in Japla.
Railway Station Japla on the E. I. Railway.	
Freight from Martin & Co.'s siding at Japla to Howrah. 376 miles.	Rs. 6-12-10 *per* ton or 3·48 pies *per* mile *per* ton.
2. The Katni Cement and Industrial Co., Ltd.	Works in Katni.
Railway Station Katni on the E. I. Railway.	
Freight from Katni Cement Railway siding to Howrah. 674 miles.	Rs. 11-14-6 *per* ton *viâ* E. I. Railway or 3·39 pies *per* mile *per* ton (*viâ* B. N. Railway is the longer route).
3. The C. P. Portland Cement Co., Ltd.	Works in Kymore.
Railway Station Jukehi on the E. I. Railway.	
Freight from the Company's siding to Howrah. 678 miles.	Rs. 11-13-6 *per* ton or 3·35 pies *per* mile *per* ton.
4. The Jubbulpore Portland Cement Co., Ltd.	Works in Mehgaon.
Railway Station Jukehi on the E. I. Railway.	
Freight from the Company's siding to Howrah. 672 miles.	Rs. 11-9-6 *per* ton or 3·31 pies *per* mile *per* ton.

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Statement V.—Agreement between the Punjab Government and the Punjab Portland Cement Company, Limited, Wah.

The Agreement was made on the 27th June 1922, and came into operation on the 1st April 1923. The Agreement has been made for a definite period of seven years, and the Punjab Government has undertaken to buy from the Company at least half its total requirements during each year of the contract. Government has the right to take more than one half of its requirements subject to a maximum of 20,000 tons per annum and proportionately more again in the event of the Company's output proving greater than was estimated.

The price is Rs. 42-8 per ton delivery free on rails at the Company's works at Wah, without bags, for the period ending with 31st March 1925. For the remainder of the period of this agreement, the price would be based upon the actual cost of manufacture to the Company during the Company's preceding financial year, *plus* a percentage on the Block Capital of the Company of fifteen per cent., or less, as may be arrived at by a sliding scale worked out with reference to the actual cost of manufacture, but it should not exceed Rs. 50 per ton as per the terms of the contract.

Statement VI. The Director General of Stores' freight rates for all commodities, including cement.

CALCUTTA STORE RATES.

	April 1924	
	W.	M.
Accumulator material	45*s*	45*s*.
Ad valorem	1¼%	..
Aeroplanes	45*s*.	45*s*.
Anchors and Chains (up to 3 tons)	52/6	..
Anthracite in bags	30*s*.	..
Antimony	50*s*.	..
Asphalt in casks or blocks	23/9	..
Axles, loose or packed	45*s*.	..
Axleboxes	45*s*.	..
Battery Jars	..	45*s*.
Bearing Plates	As Rails.	
Binoculars	Minimum or *ad valorem*	
Blankets	..	60*s*.
Bleaching Powder	60*s*.	60*s*.
Boilers—		
Not over 4 tons	65*s*.	..
„ 5 „	80*s*.	..
Over 5 tons, 5*s*. per ton or part thereof extra to be charged up to 15 tons	@130*s*.	..
Over 15 tons	Refer.	
Boiler Fittings (up to 3 tons.)	45*s*.	45*s*.
Bolts and Nuts	35*s*.	..
Brake Gear	50*s*.	50*s*.
Brass	As Copper.	
Bricks, loose (Clause)	40*s*.	..
Bricks, packed	40*s*.	..

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	W.	M.
Bridgework—		
Small and Heavy (not Lattice Girders) (line by line of specification)—		
Not over 3 tons	35*s*.	(Minimum.)
For lifts over 3 and up to 5 tons	55*s*.	..
Over 5 tons, 5*s*. per ton or part thereof extra to be charged.		
Buffers	45*s*.	..
Cable in drums (up to 3 tons)	60*s*.	60*s*.
Canvas	50*s*.	50*s*.
Carbolic Acid (s. s.)	..	110*s*.
Cast Iron Conduits	45*s*.	..
Cast Iron Pipes (Clause)—		
Up to 12 inches	35*s*.	..
,, 18 ,,	40*s*.	..
,, 24 ,,	45*s*.	..
Cement	16/6	..
Chalk in casks	35*s*.	..
Chains	50*s*.	..
Chassis, packed—		
Up to 3 tons	..	50*s*.
,, 5 ,,	..	55*s*.
Chlorate of Potash (s. s.)	..	110*s*.
Chloroform (s. s.)	..	110*s*.
Clay	35*s*.	..
Clothing	..	60*s*.
Cloth Paper	..	60*s*.
Coal Tar in casks	47/6	..
Coke (Clause)	..	..
Colliery Tube	..	32/6
Copper—		
Ingots	37/6	..
Manufactured	55*s*.	55*s*.
Sheets	37/6	..
Cotton Waste	..	42/6
Cotton Wool	..	37/6
Couplings	45*s*.	..
Crucibles	..	27/6
Deck Cargo	110*s*.	110*s*.
Disinfectant—		
Fluid	..	60*s*.
Powder	..	50*s*.
Dogspikes	35*s*.	..
Feather Pillows	..	40*s*.
Fencing Material	45*s*.	..
Ferro-Manganese	35*s*.	..
Fishbolts and Nuts	35*s*.	..
Fishplates	As Rails.	
Flannel	..	60*s*.
Fluorspar	35*s*.	..
Fog Signals	95*s*.	95*s*.
French Polish (Deck)	..	110*s*.
Galvanized Curved Sheets	23/9	23/9

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	W.	M.
Galvanized Iron Buckets in cs. crates or bundles	..	30*s.*
Ganister in casks	35*s.*	..
Gas Mantles	..	37/6
Glass—		
Bottles, empty	..	21/3
Boxes	As Hollow-ware.	
Bulls-eye Lenses for Lamps	50*s.*	50*s.*
Hollow light common	..	23/9
Plate	37/6	37/6
Gauge Glasses	50*s.*	50*s.*
Glassware and Hollow-ware	..	32/6
Glue	..	45*s.*
Glycerine	..	57/6
Grease	27/6	..
Ground-sheets	..	60*s*
Hand-stones	50*s.*	..
Helmets	..	50*s.*
Hot-water and Soil Pipes, Rainwater Goods, loose	55*s.*	..
Horse-shoes, packed	45*s.*	..
Hydrometers	Minimum or *ad valorem*	
Insulator Cups	..	45*s.*
Iron and Steel—		
Ordinary	21/3	..
Galvanized	23/9	..
Joists and Channels	21/3	..
Lamp, Black (s. s.)	..	70*s.*
Lamps—		
Ordinary	..	40*s.*
Measuring 3 times weight	..	37/6
Electrical (bulbs)	..	52/6
Lead, Pig	27/6	..
Lead Pipe	..	50*s.*
Lead Sheet	32/6	..
Lignum Vitae	..	60*s.*
Lint	..	50*s.*
Locomotives, specifications with :—		
Lifts up to and including 6 tons	75*s.*	..
Over 6 and up to 10 tons	85*s.*	..
„ 10 „ 12 „	95*s.*	..
„ 12 „ 14 „	100*s.*	..
„ 14 „ 16 „	105*s.*	..
„ 16 „ 20 „	115*s.*	..
Machinery, Linotype	55*s.*	55*s.*
Machinery (other than "Small Machines, Tools, etc.") line by line of specifications—		
Basis (up to 3 tons)	45*s.*	45*s.*
Over 3 and up to 10 tons per ton or part thereof extra to be charged	5*s.*	..
Over 10 tons	Refer.	
Manhole Covers	45*s.*	..
Measurement, N. O. E.	..	60*s.*
Mercury	*Ad valorem.*	

	W.	M.
Moulder's Blacking	40s.	40s.
Nails (not Brass or Copper)	35s.	..
Naphthaline	..	55s.
Nickel	55s.	or *ad valorem.*
Oars	..	50s.
Paints, Oil, Colours	50s.	50s.
Paper—		
Boards, in cases	40s.	40s.
Brown, in bales	40s.	..
Other sorts, in bales	40s.	40s.
Writing, in cases	45s.	45s.
Phosphor Bronze	As Copper.	
Pig Iron	20s.	..
Pipes (Wrought Iron)	45s.	..
Pitch	40s.	..
Plumbago	45s.	45s.
Point Rodding	25s.	..
Pumice Stone	..	37/6
Rails, Sleepers and Fastenings (large parcels as may be arranged)	20s.	..
Railway Tickets	50s.	50s.
Rifles	..	60s.
Rivets	37/6	..
Retorts (Cast Iron only)	45s.	..
Roofing Felt—		
Ordinary	..	60s.
Tarred	..	70s.
Ruberoid	..	60s.
Safety Cartridges (s. s.)	90s.	90s.
Sal Ammoniac	50s.	..
Salt in bags	35s.	..
Salvarsan	Minimum or *ad valorem.*	
Sand in bags	27/6	..
Saponified Cresol	..	60s.
Shirts	..	60s.
Shovels in bundles	..	32/6
Small Guns and Gun Parts	60s.	60s.
Small Machines, Tools, etc.	45s.	45s.
Socks	..	60s.
Soda—		
Ash Bicarbonate	32/6	..
Nitrate of	37/6	..
Spelter	32/6	..
Springs	45s.	..
Steel packed, exceeding £20 per ton in value	50s.	..
Strawboards	37/6	..
Structural Material (Shed-work)	35s.	..
Sulphate of Copper	60s.	..
Switches and Crossings	40s.	..
Tar in barrels	45s.	..
Thermometers	Minimum or *ad valorem.*	
Time of Flight Instruments	Minimum or *ad valorem.*	

	W.	M.
Tin—		
Ingots	55*s*.	or *ad valorem*.
Plates	37/6	..
Tubes, Boiler Steel—		
Packed	50*s*.	..
Loose	45*s*.	..
Turpentine	..	60*s*.
Type	55*s*.	55*s*.
Tyres, Steel	45*s*.	..
Wagon Ironwork (no Underframes nor Bogies)	42/6	..
Wagons and Wagonwork—		
With Underframes up to and including 3 tons weight or 30 feet in length—		
Total measurement not over 50 cubic feet per 20 cwts.	50*s*.	..
Total measurement not over 70 cubic feet per 20 cwts.	52/6	
Additions—		
(*a*) If total measurement exceeds 70 cubic feet per 20 cwts., 5*s*. extra for each additional five cubic feet or part thereof, to be charged on the whole.		
(*b*) 5*s*. extra for each additional ton or part thereof on lifts over 3 tons, to be charged thereon only.		
Weight, N. O. E.	45*s*.	..
Wheels and Axles	50*s*.	..
Wheels, loose	45*s*.	..
Whiting	As Chalk.	
Wire, Telegraph (Salt Clause)	25*s*.	..
Wire, Iron	23/9	..
Wire Rope (up to 3 tons)	50*s*.	..
Zinc Ingots	As Copper Ingots.	

सत्यमेव जयते

NOTE.—Minimum for small packages, 21*s*. each or *ad valorem*.

NOTE.—"Small Machines, Tools, etc." is to cover sundry ordinary stores of a hardware character without detailed description. Goods posted as "Sundry Ordinary Stores" will be of a higher grade such as Engine Packing, Belting, India Rubber Goods, Leather Goods, etc., and may be charged at the "Measurement, N. O. E." rate.

(2) GOVERNMENT TEST HOUSE, ALIPORE.

(ORAL ONLY.)

Evidence of Mr. N. BRODIE and Mr. H. F. DAVY, Government Test House, Alipore, recorded at Calcutta on Monday, the 25th August 1924.

President.—Will you tell us exactly what your appointment is?

Mr. Brodie.—Officiating Superintendent, Government Test House.

President.—And yours, Mr. Davy?

Mr. Davy.—Controller of Inspection, Calcutta Circle.

President.—That is under the Indian Stores Department, attached to the Test House?

Mr. Davy.—The position is that when the Indian Stores Department was established the functions of inspection and testing were grouped under one official designated the Superintendent of Local Manufactures; but as the work of both branches had greatly expanded the two functions were separated, when the office was absorbed into the Indian Stores Department and I was put in charge of Inspection.

President.—Both the Superintendent of the Test House and the Controller of Inspection are directly under the Indian Stores Department?

Mr. Davy.—Yes.

President.—When was the Test House established?

Mr. Brodie.—About 1913, as a Test House. It was not on a proper basis before that.

President.—We may take it that about 1913 the Test House came into existence as part of the office of the Superintendent of Local Manufactures?

Mr. Brodie.—Yes.

President.—When did the present arrangement come into force?

Mr. Davy.—From 1st July 1922 the office of the Superintendent of Local Manufacturers—and Government Test House, as it was called then,—was placed for administrative purposes under the Indian Stores Department, and the two functions were separated from 1st May 1923.

President.—What exactly are the functions of the Controller of Inspection?

Mr. Davy.—The inspection of engineering manufactures for railways and other public bodies who make their own purchases, and the inspection of all purchase made by the Indian Stores Department in the Calcutta area.

President.—Part of your function would be, when any work was being done on Government order in a factory, that you, or one of your staff, would go down and see the work actually going on?

Mr. Davy.—Yes.

President.—And also, I take it, when a new factory came into existence and was anxious to get Government orders, there would normally be an inspection by you or on your behalf?

Mr. Davy.—Yes, to see whether they were properly equipped.

President.—Your principal function is to go round—I mean you and your officers—and see the work actually going on in the factory?

Mr. Davy.—In the case of manufacturers of cement, oils paints, chemicals, etc., if they want to become Government suppliers, the Government Test House inspects the works and reports on their fitness. In the case of manufacturers of other articles I am asked to do it. When it comes to the inspection of orders actually placed, this is placed in my hands. If testing or analysis is necessary, I send on samples to the Text House for their opinion, and they report to me. There is no question of subordination in it. It is a matter of convenience.

President.—How long has cement testing been going on in the Test House?

Mr. Davy.—It started on a small scale in 1913 and increased rapidly.

President.—So it has been going on for nearly ten years?

Mr. Brodie.—Yes.

President.—Therefore the Test House has had a good opportunity of forming an opinion about Indian cement?

Mr. Brodie.—Yes.

President.—Also, I take it, that all the cement factories now producing cement in India have actually been inspected?

Mr. Davy.—Yes, with the exception of Dwarka, the Punjab, Shahabad and the Gwalior Cement Works.

President.—These are works recently completed?

Mr. Davy.—Yes. During the war when agreements were entered into with 3 companies for the supply to Government of cement, we inspected the factories and took over the control of the inspection of cement. The other factories have come into being since then.

Mr. Ginwala.—Which are the three?

Mr. Davy.—Katni, Porbunder and Bundi. These are the factories which were supplying cement to the Munitions Board.

President.—Have you inspected any of the new ones?

Mr. Davy.—One, the Sone Valley Works.

Mr. Ginwala.—Not the Central Provinces Cement Works?

Mr. Davy.—No, I have not been there.

President.—All I want to know is how would the question of inspecting such a factory arise?

Mr. Davy.—In the normal course, when they wanted to become Government suppliers, they would apply to the Department of Industries which would refer the matter to the Chief Controller of the Stores and he in his turn would send it down to the Test House for report.

President.—Is it the present position that the newer factories, which have not been inspected, have not applied to the Department of Industries to be recognized as Government suppliers?

Mr. Brodie.—Possibly so, or probably they are so well known that it is not considered necessary to have a formal inspection. I think that is the Stores Department point of view. I don't think that they consider that they need any inspection.

President.—From what Mr. Pitkeathley told me I gathered that they were tendering to Government.

Mr. Brodie.—I think they have all been put on the approved list as a matter of course.

President.—Is the testing of cement in the Test House sometimes done at the request of the manufacturer?

Mr. Brodie.—Yes, we get samples from manufacturers, most manufacturers send samples monthly. Apart from that we get samples from importers and official users, such as the Public Works Department, Railways and Port Commissioners. We also get samples from all consignments sold to the Stores Department.

President.—I take it the reason why the manufacturer sends samples to be tested is that it is of advantage to him to have a certificate as to the quality of his cement?

Mr. Brodie.—Not altogether: he also wants to know what the test of his monthly output is like as a check on the result of his own testing.

President.—Would he be at liberty to use any certificate given by you on his cement?

Mr. Brodie.—Yes.

President.—That is of some importance, because one thing which struck me at the beginning of the enquiry was that the Companies do not seem to have made sufficient use of publicity methods.

Mr. Davy.—The Bundi Cement Company is the only one which does it systematically. They have samples representing their monthly output tested. They get the Superintendent from time to time to sign a tabulated statement showing these results and have published it in their booklet.

President.—When a Government Department or a Government officer sends samples of cement to be tested, what is the usual reason for that?

Mr. Davy.—He wants to verify the quality of the cement, and also to see whether it conforms to the British Standard Specification.

President.—Are there any standing orders requiring Government officers to send samples to be tested or is it left to the discretion of individual officers?

Mr. Brodie.—It is left to them.

Mr. Davy.—I don't think there is any standing order. There was some sort of standing order in Bihar and Orissa during the year before last as a result of the accident in Cuttack when the Test House were asked to examine samples of mortar, etc., with a view to discovering the cause of failure. As a result of the Chief Engineer coming down once or twice I think a standing order was issued that samples of all cement used should be sent to the Test House. Whether that order still remains in force or not I cannot say.

President.—Anyhow it is left to the officer or to the department concerned to decide whether the cement is to be sent to the Test House to be tested or not?

Mr. Davy.—Yes.

President.—What fees do the Test House charge when private consumers send samples of cement to be tested?

Mr. Brodie.—Rs. 48 for physical test and Rs. 96 for complete test—physical test and chemical analysis.

President.—Do private consumers take full advantage of it?

Mr. Brodie.—We get more from merchants and manufacturers than from private consumers.

President.—Are you prepared to tell the Board the view you take as to the quality, generally speaking, of the cement manufactured in India?

Mr. Brodie.—I consider it to be very good.

President.—I take it that sometimes there will be failures, that is to say, occasionally something might go wrong?

Mr. Brodie.—It does not as a rule fall below the British Standard Specification.

President.—Have you formed any opinion as to how it compares in its qualities with the imported cement that comes from England? Do you ever test any imported cement?

Mr. Brodie.—We have no very great experience of that, but, so far as we have been able to judge, Indian cement is as good as or rather better than imported cement, taking into consideration the fact that it is to be used under Indian conditions, and also I may say that it is considerably superior to Continental or other foreign cement, as far as we have experience of it.

President.—Have you done any tests at the Test House of Continental cement?

Mr. Brodie.—Not many, but enough to enable us to form an idea that the stuff coming in is not so good as Indian cement.

Mr. Davy.—Just after the war samples of most of the brands usually imported were tested, and the impression gained was that the Indian cement was quite as good as the British.

President.—So far as quality is concerned, putting aside for the moment any question of price, you think the Indian cement manufacturer ought to be able to establish his position?

Mr. Brodie.—I quite agree.

President.—Do you ever get complaints either from Government officers or private individuals about the quality of Indian cement?

Mr. Brodie.—Yes, occasionally.

President.—Do you think the complaints are always well justified?

Mr. Brodie.—By no means.

President.—Can you give any typical instance of the kind of thing that happened?

Mr. Brodie.—In two instances during the last year I had very flagrant cases of official engineers condemning cement which was perfectly good. This was owing to faulty testing.

President.—The engineers had endeavoured to test the cement themselves?

Mr. Brodie.—Exactly.

President.—And had obtained results which they considered unsatisfactory?

Mr. Brodie.—If they were true, it would have been mostly unsatisfactory, but they were not correct. In both cases, the cements were afterwards tested by us and found to be quite satisfactory.

President.—Have you been able in these cases to convince the engineers that their test was not right?

Mr. Brodie.—I don't know whether they were convinced, but I did my best.

President.—I take it that it is very desirable that cement testing should be done by people who are accustomed to do it and are properly equipped to do it?

Mr. Brodie.—It is quite essential. It is much more difficult than the average engineer is inclined to admit.

Mr. Davy.—I would go further than that and say that, so far as testing to British Standard Specifications is concerned, few engineers ought to attempt it. I think they ought to leave it entirely to the manufacturer, or to a recognized institution such as the Test House or to some private specialist.

Mr. Ginwala.—Why do you say that?

Mr. Davy.—A very small fault in or variation from the strict standard procedure is apt to give very different results which mislead the engineer as to the value of the stuff he is using. If I were an engineer myself, without standard testing equipment or the requisite experience in testing cement, I would confine myself entirely to finding out what results were being obtained on my own work; that is to say, instead of attempting to make tests according to the British Standard Specification, the object of which is to prove the quality of the cement, I would make tests with the particular materials that I was using in the job. For instance, I would make blocks and test those, using the sand and the aggregate I was using in my actual work. If I were making reinforced brick work, I would confine my test to the sand and cement as used on the site, moulded in exactly the same manner. For these tests only a very limited apparatus is required, such as many engineers have on their own jobs, or he can mould cubes and send them to the Test House or somewhere else to be tested.

Mr. Brodie.—It is a fairly frequent thing for the engineers to make their own blocks and send them to be tested.

President.—The importance of it lies in this that Government officers should make full use of the Test House when the opportunity of getting the cement tested is there.

Mr. Davy.—If the Government were anxious to help the industry, my personal view is that they should greatly reduce the fees for testing cement in the Test House, reduce them considerably below the cost of the work and subsidise the Test House for their loss, so as to induce people to have cement tested there.

President.—Do you think that would do something to overcome the prejudice against the Indian cement?

Mr. Davy.—My view is that an engineer who is not acquainted with Indian cement and doubts its quality is faced with the probable expenditure of several hundreds of rupees in having Indian cement tested, and he is therefore quite prepared to take foreign brands which he well knows on the manufacturer's certificate.

Mr. Brodie.—It seems to me that the engineer is apt to take English cement as being *ipso facto* sound, whereas Indian cement he is inclined to suspect. He won't take it without its being proved to him that it is satisfactory. If he does his own testing and the testing is defective, the Indian cement gets a bad name.

President.—Probably, if the cement comes from England, he does not take the trouble to test it.

Mr. Brodie.—I think that is what frequently happens.

President.—I want to ask you about the Committee that is sitting to consider the modifications of the British Standard Specification to render it more suitable to Indian condition. Can you tell us briefly how the movement started to get certain changes made? What are the reasons why modifications were considered necessary?

Mr. Davy.—The British Engineering Standards Association got out the first specification some years ago and have modified it from time to time, notably in 1910, and it so happened that towards the end of last year they themselves considered modifications necessary of the British Standard Specification.

Mr. Ginwala.—For Indian conditions?

Mr. Davy.—For British conditions. So far as Indian conditions are concerned I think I am largely responsible for bringing to notice the unsuitability of the 1910 revisions for Indian conditions. I came to do it in connection with tests during the war. If we had rigidly applied the British Standard Specification to which cement for Government was supposed to conform we should have rejected most of it. We had to interpret the specification pretty broadly and pass cement which complied with the spirit of the specification rather than with the letter.

President.—Can you tell us generally what the unsuitability was?

Mr. Davy.—The British Standard Specification calls for certain increases of strength at 28 days above the 7 day strength. The effect of cement being tested at a higher temperature (about 30° higher than the British test) is to make the cement arrive at its full strength quicker. Consequently, it is possible that cement, which would arrive at a certain figure in 7 days in England, would arrive at that figure in about 4 days in India and by 7 days it would have reached the same figure as in 14 days in England. Consequently, the formula for increase in strength in 28 days is not strictly applicable to Indian conditions.

President.—Who appointed this Committee?

Mr. Davy.—The Committee was appointed by the Institution of Engineers (India) which has been authorised to deal with specifications by the Government of India, and acts in conjunction with the British Engineering Standards Association as a sort of advisory board. I recommended that the specification be modified so far as India was concerned about 1917, and with the object of stimulating feeling on the subject I read a small paper before the Institution.

President.—Is this Committee likely to send in its report soon?

Mr. Davy.—We sent in our final recommendations on the 1st of June, and they are now being considered by the British Engineering Standards Association, the present position being that, in our opinion, it is possible for the British Committee so to arrange the wording of their specification as to make it fully applicable to India. Alternatively, they may add a postscript, or addendum to the British specification stipulating modifications in the rerequirements for tropical countries.

President.—It would apply equally to any other country where the temperature is high?

Mr. Davy.—Yes. The attitude taken up by the Committee is that, unless the British Committee modifies the specification so that it is suitable for tropical conditions as well as temperate climates, it will probably be necessary for us to draw up a suitable specification for cement to be used under tropical conditions. We are not desirous of doing this, because we think it is better to have one specification for all countries.

President.—It may be desirable to have a single specification for the whole world, approved by the League of Nations or something of that kind. But that does not prevent any particular country from having its own specification, if it is necessary?

Mr. Davy.—No. Another point of view placed before the British Committee was that it would be to the advantage of the British manufacturer to have a uniform specification. There is one other point in connection with the relative values of Indian and imported cement and that is that cement is apt to change with time, specially in regard to setting time. It sometimes gets better; it occasionally alters for the worse, and then sometimes again alters for the better. The usual tendency is for it to quicken. In rare cases it becomes slower setting again, but usually it remains quick, and I think one point in favour of the Indian product is that the average time between the factory and the job is very much less than in the case of the British cement, and therefore the risks of changing are much less. For that reason I would use the Indian cement fresh from the factory rather than British cement which has come over the water, and might possibly have been a year or more in stock before it was used.

Mr. Brodie.—Another point that may partly account for the feeling that some engineers have in favour of English cement is that it is imported in barrels, whereas the Indian cement is sold in bags, and if it has to be stored, the stuff in barrels with waterproof paper lining is going to keep very much better.

President.—A certain amount of storage is unavoidable?

Mr. Brodie.—I think it will be found that a lot of cement goes bad and the cement in the barrels has a good deal of advantage in that respect.

President.—Have you had it definitely brought to your notice that Indian cement has gone wrong through being stored in bags, or is it just the impression that you have got from what you have heard from engineers?

Mr. Brodie.—None in the last year, but Mr. Davy says there were previous cases which were brought to his notice—where cement stored in the open or damp godowns had got lumpy and reduced in strength.

President.—Of course we have heard about that packing difficulty before. It seems to be rather a serious one.

Mr. Ginwala.—Is there any prejudice on the part of engineers against the Alipore Test House itself?

Mr. Brodie.—Well, engineers as a rule think that they are more competent than we are to do cement testing, while we think that we are more competent than they are.

Mr. Ginwala.—Do they say that the Alipore test is a sort of laboratory test which may not be borne out in actual experience?

Mr. Brodie.—They may say that, but I am referring more particularly to testing to British Standard Specification, that is laboratory testing. It is like this. An engineer does the test on his own work with his own staff and the results differ from ours. He is not prepared to take anybody's word, and therefore he condemns the cement because his own testing does not show it to be satisfactory.

Mr. Davy.—So far as the British Standard Specification is concerned, these tests are purely laboratory tests.

Mr. Ginwala.—I quite understand. The consumer does not care a rap for the British Standard Specification. He only wants to know how the cement will turn out in actual practice. This is what he will say "You may test it in the laboratory but in actual experience I find it to be different." What can you say to a man like that?

Mr. Davy.—As I said earlier, so far as the behaviour of cement on the actual job with local materials is concerned, there is no reason why he should not carry out his own tests as far as he can, but Indian and British cements which comply with the specification will both behave similarly on his work.

Mr. Ginwala.—That is the point. How is the industry going to be helped? The engineers have a prejudice against the Indian cement. They have a prejudice against laboratory tests, and indeed the time test can only be established by time.

Mr. Davy.—I don't agree with that.

Mr. Ginwala.—In what don't you agree with me? I am not expressing any opinion. That is how the engineer looks at it.

Mr. Davy.—I don't think that it is a very sound view for him to take up.

Mr. Ginwala.—It may not be a sound view to take up, but how are you going to make him change his view?

Mr. Davy.—If the cement compares with the standard specification favourably, then anything which the engineer may say about its later results on the work must be the result of prejudice. If an Indian cement gives results similar to a British cement in the laboratory tests which the British Standard Specification calls for, then those two cements will go on in exactly the same way on the work. It is a laboratory test, but it shows what the cement is like and what it will do.

Mr. Ginwala.—His standpoint is this: "it is all right, the Indian cement fulfils the British Standard Specification. I admit it at once, but you cannot point out to me a single building, in which Indian cement has been used, which has stood the test of as many years as British cement." How are you going to satisfy such a man?

Mr. Brodie.—I don't think that it is a reasonable point of view for him to take.

Mr. Ginwala.—I don't know whether it is reasonable or not, but he takes at all the same.

Mr. Brodie.—We might point out to him that the cement of 50 years ago—whether British or any other—was quite a different product from what it is to-day.

Mr. Davy.—I don't think strictly speaking there is any Portland cement which is 50 years old.

Mr. Ginwala.—It may not be 50, it may be 30 years—at any rate much older than the Indian cement.

Mr. Davy.—The British Standard Specification was not got out to help the manufacturer of cement. It was got out principally to safeguard the user.

Mr. Ginwala.—The manufacturer applies for help. The manufacturer says "There is some prejudice on the part of engineers." The engineer says "It is no prejudice. I don't know much about this cement. I don't know how it will behave after 50 years."

Mr. Davy.—I think he is calling in question the results of the labours of the British Standards Committee over a period of years. The specification has been got out to give him a cement which will not only be good for a few years but for all time.

Mr. Brodie.—On the Indian Committee, engineers were very strongly represented and they made no suggestion about it.

Mr. Davy.—The British Committee is composed very largely of users. Speaking from memory I think that the British Committee consists approximately of two-thirds engineers—users of cement—and one-third manufacturers and scientists. They have a majority on the committee and they are men high up in their positions, representing big organisations of users. They have taken responsibility for the specification. They give their names to the specification and what they say in effect is, if you get cement according to this specification, it will be good for all time, and any engineer who says that the cement may pass the specification and yet be useless at the end of, say, 10, 20, 30, or 40 years is making a serious statement.

Mr. Ginwala.—No, he does not say that. He says he does not know what is going to happen and so he is not going to take any chance.

Mr. Davy.—Such a man is unable to weigh scientific evidence.

President.—You mean that he would not be supported by the best men in his own profession?

Mr. Davy.—That is it.

Mr. Ginwala.—You say that such an idea is an unreasonable one. Is that your opinion?

Mr. Davy.—Yes.

Mr. Ginwala.—Supposing you change the British Standard Specification and have a special Indian specification, such a man would find one more reason, won't he, for rejecting the Indian cement?

Mr. Brodie.—That is why we want to have the British Standard Specification suiting Indian conditions. That is one of the factors that suggested itself to us when formulating our proposals.

Mr. Ginwala.—What is your remedy for that?

Mr. Brodie.—The point you have just raised is one of our reasons why we should have a common specification for both countries instead of two separate specifications.

Mr. Ginwala.—There still remains the other point. Either it must be the work of time or it may be the work of training, but there is no question that there are engineers in this country who would pay Rs. 10 or Rs. 15 more a ton and use the British cement rather than the Indian cement.

Mr. Brodie.—That is so.

Mr. Ginwala.—To cure him of that, there must be some means.

Mr. Davy.—Some people base their view not on the fallibility of the specification, but on the fact that they consider that an English factory is more reliable in turning out a uniformly good product day in and day out than an Indian factory.

Mr. Ginwala.—Do you think that there is anything in that so far as your experience of Indian factories goes?

Mr. Davy.—I think there is little or nothing in it.

Mr. Ginwala.—That ground also falls to the ground in your opinion?

Mr. Davy.—They also possibly feel that the British manufacturers, for example, the Associated Portland Cement Manufacturers, would not send out bad cement.

Mr. Ginwala.—They have got a branch here now.

Mr. Davy.—The fact that it was an Associated Portland Cement Manufacturers' works might prejudice some in favour of the Sone Valley Company. Their view is that these other companies have only been established during the last few years, that their reputation is not established and they might possibly send inferior stuff.

Mr. Ginwala.—There may be a reasonable ground for such a belief on their part.

Mr. Davy.—I don't think it is reasonable.

Mr. Ginwala.—At least it is natural.

Mr. Davy.—Yes.

Mr. Ginwala.—That is a thing which time alone can cure.

Mr. Brodie.—If they have it tested, they can say once for all whether it is inferior or equally good.

Mr. Ginwala.—That means they will have to get practically every delivery tested.

Mr. Davy.—There is one thing which might be possible. If cement purchases for Government Departments, provincial and central, could be centralised, it would be possible to make running contracts, and the inspection of supplies systematically tested.

President.—I don't say that it is impossible, but there is one great difficulty. For instance, the Roads and Buildings Branch is a transferred subject and it is a little difficulty to get the Ministers in all the Provinces to agree to this.

Mr. Davy.—Would they not be willing if a saving were effected? My view is that one authority purchasing in India would be able to purchase cement cheaper than the Minister for Local Self-Government who would buy a few tons.

President.—I don't think that, if you get it much more cheaply, there will be any cement produced in India at all.

Mr. Davy.—If prices move so as to make this favourable, this can be made to react in favour of the Indian industry, because if all the purchases were placed in the hands of the Stores Department, they would carry out systematic inspection right through the year, and on the basis of that inspection they might be able to deny authoritatively that there was anything in the prejudice.

President.—That may come about as a natural development as time goes on, on the basis of Provincial Governments voluntarily putting themselves in the hands of the Stores Department. I don't think beyond that it is possible.

Mr. Davy.—Quite so.

Mr. Ginwala.—What test do you carry out of cement in actual use?

Mr. Brodie.—Anything that a particular engineer wants.

Mr. Ginwala.—Is that frequent?

Mr. Davy.—As compared with the number and variety of work that is done in India, it is very infrequent. When a man has a special job, something of outstanding importance, he asks for testing.

Mr. Ginwala.—Such as pipes, etc.

Mr. Davy.—Yes; in the case of reinforced concrete, he wants to know accurately what he is going to get on the work.

Mr. Brodie.—For example, in the case of reinforced concrete bridgework, he would want to know the strength accurately. He would have tests made then. In the case of the Dum-Dum bridge, the Calcutta Improvement Trust who are erecting it are doing this.

Mr. Ginwala.—That is to say, they send you the prepared concrete and you carry out the test.

Mr. Brodie.—Yes. We carry out crushing tests.

Mr. Davy.—In the case of the Sara bridge, now called the Hardinge bridge, somewhere about 12 to 20 blocks representing concrete as used on the foundations for piers were sent down regularly.

Mr. Ginwala.—How would you test it for the effects of water, heat or some other climatic condition?

Mr. Brodie.—We do not do that.

Mr. Davy.—When they were casting their concrete they cast some separately in boxes for testing. I believe they did it throughout the whole of their work. Whenever they made concrete, they made a few blocks.

Mr. Ginwala.—Then, it is purely a mechanical test?

Mr. Davy.—Yes.

Mr. Brodie.—So far as the effects of water, heat or other climatic condition are concerned, it seems to me to be a question of general experience of reinforced concrete and not strictly speaking a matter of testing at all.

Mr. Ginwala.—In India it is quite a new thing.

Mr. Brodie.—Fairly new.

Mr. Ginwala.—Therefore our experience is not very much.

Mr. Brodie.—Quite so. What I mean is that, whether reinforced concrete is suitable for a certain bridge or not, is not a question of testing. It is a question which the engineer has got to decide for himself from his own as well as others' experience of bridges in this and other countries. I don't think that it comes within the scope of the Test House.

Mr. Ginwala.—Is there no process in cement corresponding to the process in wood where you can create an artificial temperature for seasoning or testing?

Mr. Brodie.—I have not heard of any such process in the case of cement.

Mr. Ginwala.—In the case of wood, it enables them to say what would happen if certain temperature prevailed and if all of a sudden that temperature changed.

Mr. Davy.—Practically the only effect of higher temperatures on the hardening of cement is to accelerate it. One of the standard tests is to boil a specimen. By this test faults in a cement which in practical use would perhaps not be revealed for a considerable period are indicated in a few hours.

Mr. Ginwala.—The Alipore Test House has been working for some years now. Do you follow the history of any particular cement you have tested to find out how it behaved in actual practice?

Mr. Brodie.—No.

Mr. Ginwala.—Don't you keep a record?

Mr. Davy.—Where we were testing on behalf of suppliers, we tested daily outputs and the daily output would go to a large number of consumers.

Mr. Ginwala.—Take the case of a bridge, on which cement tested by you had been used.

Mr. Davy.—It is difficult to know what the cement is doing in actual practice because the factor of safety may be 5, that is to say, it may require five times the working load to produce rupture. The only way to test cement in actual practice is to see whether it falls or stands. It is difficult to tell whether the factor of safety at the end of a number of years is still 5 or only 4 until it actually gives way; then, you know it is less than 1.

Mr. Ginwala.—What is your experience of the use of cement in this country for different purposes? Do you think that it has been successful?

Mr. Davy.—I am not in a position to give an opinion, but I have never heard anything to the contrary.

Mr. Ginwala.—With regard to lime, I wanted some figures the other day.

Mr. Brodie.—Your point was what proportion of cement one would have to use to make something analogous to lime concrete. I do not think that one can give any definite figure of that sort. It is very difficult to make a numerical comparison of the strength of lime concrete and cement concrete, and I doubt whether it would be practicable to use a very dilute cement concrete, even if laboratory tests showed it to have much the same strength as lime concrete.

We have recently been making some comparative tests more or less on these lines, and as far as I can make out ordinary lime soorkey mortar has much the same strength as cement-sand mortar 1: 6 or 1: 8½. There will be a lot of variation owing to the differences between different supplies of materials. I cannot give an exact figure.

Mr. Ginwala.—We don't want an exact calculation.

Mr. Davy.—It is very difficult to get even the approximate figures.

Mr. Ginwala.—People say that cement is very much stronger than lime.

Mr. Brodie.—That is really the point at issue.

Mr. Ginwala.—But the consumer may say, "If lime can bear a pressure of 150, that serves my purpose. I don't want cement which can bear a pressure of 450."

President.—Lime would be good enough for this hypothetical user. He is quite content with it. He won't use cement unless it is cheaper. At what point would cement become cheaper than lime? Obviously it must depend on the quantity of cement you have got to use to get the same result.

Mr. Brodie.—As far as I can make out you require, speaking very roughly, about one-third the quantity of cement to produce the same result as in lime concrete.

Mr. Ginwala.—That would be very expensive.

Mr. Brodie.—It would be. For much building work I do not see how lime can advantageously be replaced by cement.

President.—I am surprised that the figure you mentioned is so low. At any rate one cement manufacturer gave us a higher figure.

Mr. Davy.—It would be impossible to get an accurate ratio because the strength of lime concrete is so variable, depending on the nature and condition of the lime used which vary greatly, and also in many cases to the dimensions and position of the concrete on the work.

Mr. Ginwala.—On page 136 of the evidence tendered by applicants for protection you will see that the Gwalior Company people say "Yes, in the proportion of 1 to 11. We have made experiments and this proportion of 11 to 1 or 10 to 1 will give better breaking strength than the lime."

Mr. Brodie.—Their figures don't necessarily conflict seriously with mine. It depends on exactly what is meant. Mr. Bilimoria says that 1 : 11 cement-sand mortar would give better results, but we do not know with what lime mortar he is comparing it. For the figure I gave you I was taking as a basis of comparison a mortar of 1 part of lime to two of soorkey. If a mortar of lime and sand only were used, the results would be very different, but this would not be a fair comparison. One has to compare cement with lime used to the best advantage. The soorkey has an action on the lime and increases its strength. The proportions I have said are those in general use at least in this part of the country. We have made some experiments on this point. The figures I have got show that after 28 days 1 : 8½ cement-sand mortar is equivalent in strength to 1 : 2 lime-soorkey mortar. This would give a ratio of about 4. After some time, however, the lime mortar will show an increase of strength, so, to be on the safe side, I take the ratio as 3.

Mr. Ginwala.—That is to say, that may be the strength at the beginning, but the relative strength may increase in favour of lime after six months?

Mr. Brodie.—Yes.

Mr. Ginwala.—That will bring down the relative value of cement?

Mr. Brodie.—That is my tentative opinion.

Mr. Ginwala.—It may be possible for you, now that the case has been put to you, to make the test and give us the result.

Mr. Brodie.—It is not at all easy. It seems to me to be very difficult, whatever results we may get, to persuade engineers to discard lime in favour of cement.

Mr. Ginwala.—It is not for engineers. It is for the general consumer. We have to determine when the consumer will begin to use cement rather than lime. At what stage he may find it worth his while to do so.

Mr. Brodie.—Of course it would depend on the nature of the work. For example, in Calcutta they use lime concrete for ordinary foundations and lime mortar for brick work, but they frequently use cement concrete for lintels and floors and cement mortar for the finishing of floors.

President.—The feeling in my mind is that, to a large extent, the consumer in such cases is bound to be guided by the advice he gets from the engineer, so that unless the engineering profession is persuaded I do not think the result would be brought about.

Mr. Ginwala.—What the consumer says is "I know what lime is going to cost me: I do not mind paying a little more, but if there is a big difference I will stick to lime."

Mr. Brodie.—Lime has certain merits from the point of view of the practical engineer. For one thing his workmen are used to handling it and he knows what sort of result to expect. It has another merit. You can always get it and frequently it can be made on the spot and then again I believe that compared with its strength lime concrete is more resistant to shock. Supposing that instead of using lime concrete you use a weak cement concrete, you are rather up against an unknown problem. You don't know what effect porosity is going to have on it. The absence of fine particles might be rather serious.

Mr. Ginwala.—Are these proportions of cement to concrete the same as they have in England?

Mr. Brodie.—As far as I know they are much the same.

Mr. Ginwala.—I think one of the manufacturers said that it would be an advantage to vary the proportion in India.

Mr. Brodie.—I do not know much of that aspect of it.

Mr. Ginwala.—There is no doubt that the practice in England may be perfect, but it does not follow necessarily that it is applicable to another country.

Mr. Brodie.—If you refer to the best concrete you can make it seems to me that climatic conditions do not affect the point at all. The question of the proportions used is largely one of the grading of the aggregate. Some people will say that 1: 2: 4 is not the best proportion but that after all is rather the builder's business.

Mr. Ginwala.—How long will cement keep?

Mr. Brodie.—If it is stored away from damp it might keep indefinitely. It all depends on the conditions under which it is stored.

Mr. Ginwala.—Even if it is packed in bags?

Mr. Brodie.—How long it keeps in practice I cannot say, but I do not think you can say that time is a prime factor at all.

Mr. Kale.—It has been suggested that the best cure for the prejudice of certain engineers against Indian cement would be to prevent them from using foreign cement altogether by imposing a very prohibitive duty. Do you think it would be fair to do so?

Mr. Brodie.—That is rather politics.

Mr. Kale.—From the technical point of view, if you think that there is such an unreasoning prejudice, is it not desirable?

Mr. Davy.—The only way to keep quality up to the mark is to have plenty of competition from outside.

Mr. Ginwala.—Internal competition might do the same thing.

Mr. Davy.—It depends on the ratio of output to consumption, and I am not in a position to say what that ratio will be and whether there would be sufficient competition between Indian manufacturers. My view is that Indian manufacturers would combine as they have done in England. If the demand fell off, they would close down temporarily certain works, and the selling price would be fixed according to the demand and not regulated by competition.

Mr. Brodie.—It is the experience in other countries that manufacturers combine.

Mr. Kale.—Do you mean to say that it is the quality and the price that will induce engineers ultimately to use Indian cement and that there should be no sort of compulsion?

Mr. Davy.—I do not think prohibition of imports would have the desired effect.

Mr. Kale.—Have you yourself written any report on the condition and prospects of cement manufacture in India?

Mr. Davy.—Mr. Musgrave and myself wrote a small brochure for the Indian Munitions Board and a Report on Indian Cement Factories.

Mr. Kale.—Are you aware that your brochure was seized as an argument for starting so many factories in India?

Mr. Davy.—I don't think industrialists would start factories simply because we considered the prospects of the industry were good. Our views happened to coincide with their own business views on the subject. The suggestion is flattering but inadmissible.

Mr. Kale.—Do you think that, when you wrote, the prospects were really favourable and is it the general depression that has come all over the world that has come in the way of the fulfilment of that prophecy?

Mr. Davy.—I cannot remember the actual figures of consumption and Indian output on which we based our prophecy. The firms have not increased the output on the lines we suggested but in a way they thought would be better. What we suggested was that factories were required in different parts of the country. We instanced the distances from various centres to the existing three or four factories, we pointed out that the south of India was practically not served, that the Punjab was not served and that there were places which were far removed from existing factories. We suggested districts which, other things being equal, should be suitable for the establishment of factories. The Punjab was one, but I do not remember whether Gwalior came within our suggestion.

Mr. Kale.—At Shahabad in Hyderabad the Tatas are putting up one.

Mr. Davy.—The other factories have doubled their output in the meantime. Katni have put in a second kiln. I think Porbunder have more than doubled their output. Dwarka have started a factory in the same district. The Punjab Cement Company serves a new area, but Bundi have doubled their output. Gwalior is not very far from them and both serve more or less the same area. With supply greater than the demand, factories near each other must be cutting each other's throats. We never suggested the desirability of putting up a factory at Jubbulpore when there was one at Katni 35 miles away.

Mr. Kale.—You thought at the time that the consumption of India would increase?

Mr. Davy.—Yes, I thought so. The curve of consumption was, I think, going up steadily.

Mr. Kale.—Please see the last paragraph at page 318 of the Indian Munitions Board Handbook: you say—

"To sum up, the present position of the Portland Cement industry is fairly satisfactory. Existing companies have proved that excellent cement can be made in India at a profit and, as the prejudice against the Indian product has been overcome, the way is now clear for further development. Both internal and external conditions after the war are likely to be favourable to the industry. The demand will be heavy; owing to the demands for British cement for reconstruction purposes in Europe, the amount available for export to India will probably be small, and conditions in the United Kingdom and high freights are likely to keep the price of imported cement far above the pre-war level. To a lesser extent the cost of freight will keep up the price of Japanese and Hongkong cement also. These conditions will assist manufacturers in India at a time when keen competition from abroad might have been very detrimental to the industry."

Mr. Davy.—So far as the cement industry was concerned I shared to some extent the optimism which was common all over the country at that time. Both the internal and external conditions appeared to be favourable to the industry. I can admit straight off that our prophecy has so far been falsified, whatever happens in the future, like many prophecies.

President.—The consumption is a great deal higher than it was.

Mr. Davy.—Yes. Where I made a mistake was here: I said "The demand will be heavy; owing to the demands for British cement for reconstruction purposes in Europe, the amount available for export to India will probably be small." That has become entirely falsified. British factories are not being kept busy by reconstruction work in Europe.

President.—It may come yet, but it has not come so far.

Mr. Davy.—Freights were rising very much. I am inclined to be optimistic still. The shipping people have been saying that they are losing money on freights. It certainly looks as if Indian cement is having a bad time now principally because the English cement is not being sold to the extent expected and therefore the manufacturers are selling at low prices.

Mr. Kale.—Do you now think that consumption will go up steadily?

Mr. Davy.—I think it will.

Mr. Kale.—The case of the cement industry depends entirely on steadily increasing consumption, and could you make a forecast?

Mr. Davy.—I made a very general one in the brochure referred to and after that I think I may be excused from making any further forecasts!

Mr. Kale.—Do you think that jute bags are disadvantageous so far as transportation within the country is concerned?

Mr. Davy.—Not if transit is made in covered wagons, and cement stored properly.

Mr. Kale.—It is only when it is taken by sea that the difficulty would come in?

Mr. Davy.—There again it depends on the conditions. In the cold weather and in steamships I do not think it should suffer in any way. If rice and flour can be taken by sea I do not see why cement should suffer.

Mr. Kale.—What applies to flour will also apply to cement?

Mr. Davy.—Unless care is taken in transport to keep water out it gets lumpy and spoiled, but flour gets useless. I expect from Porbunder a good deal of cement is shipped in country boats, and during the monsoon these boats probably take in water from below as well as above.

(3) CORRESPONDENCE WITH THE CONTROLLER OF PURCHASE, CALCUTTA CIRCLE.

I

Letter, dated 31st January 1925, to the Controller of Purchase, Calcutta Circle.

I am directed to request that you will kindly furnish the Board with the following information which is required in connection with the Board's enquiry regarding protection for the cement industry:—

(1) The latest prices f.o.b. British port of British Portland Cement.

(2) (*a*) The latest, and (*b*) the lowest prices tendered by Indian Cement Companies for Portland Cement.

If possible, these should be given both f.o.r. factory and also at destination.

II

Letter, dated 4th February 1925, from the Controller of Purchase, Calcutta Circle.

In reply to your letter No. 73, dated 31st January 1925, and in confirmation of my telephonic communication of to-day's date, I have the honour to give below the particulars required by you:—

(1) Latest price of British Portland Cement, £0-9-2 f.o.b., British port per cask of 375 lbs. net.

(2) Latest and the lowest price tendered by Indian Cement Companies for Portland Cement, Rs. 25 per ton f.o.r. Cement Factory, for quantities of 2,500 and 6,200 tons.

Both above relate to early January 1925.

सत्यमेव जयते

Witness No. 24.

BENGAL AND NORTH-WESTERN RAILWAY COMPANY.

WRITTEN.

Replies to questionnaire (3) (a). (Letter, dated the 9th September 1925.)

With reference to your No. 743, dated the 22nd August 1924, I beg to remark as follows on the questions contained in paragraph 6:—

(1) With cement about its present value, there will be no great increase in the consumption by this Railway which has ample local supplies of excellent hydraulic lime.

(2) *Nil.*

(3) Cement at its present price cannot be used economically to replace lime. Cement priced about Rs. 20 per ton including freight would begin to compete with lime, but cement would have to be purchased in quantities which could probably not be used soon after being received and so be liable to deterioration, a factor which would have to be taken into consideration when comparing with lime which can be burnt as required.

(4) The cement now used on the Bengal and North-Western Railway is of Indian manufacture.

(5) Indian cement has been found to be quite satisfactory for the minor works in which used on the Bengal and North-Western Railway. There have, however, been no major works in which cement demanding strict tests would have been used, therefore no opinion of value can be given to this question.

(6) Cement packed in bags is more liable to deterioration than if packed in barrels and preference would be given to the latter even at a higher price.

(7) There are no cement factories on the Bengal and North-Western Railway so the question of freight on coal does not arise.

सत्यमेव जयते

Witness No. 25.

Madras and Southern Mahratta Railway Company.

WRITTEN.

Replies to questionnaire (3) (a). (Letter, dated the 29th August 1924.)

With reference to your letter No. 743, dated the 22nd August 1924, I have the honour to reply as follows:—

1. 500 barrels (375 lbs. net) of cement supplied by Messrs. Aberthaw and Bristol Channel Portland Cement Company, were imported last month. The cost f.o.r. Madras works out at Rs. 11-2-9 per barrel. This is the latest supply through our Home Board.

The Controller of Stores purchased in India in June last 447 barrels (375 lbs. net) "invicta" brand and 1,553 barrels J. B. White brand. The prices of these English cements f.o.r. Madras were Rs. 11-7 and Rs. 11-10 respectively.

The latest quotations for Indian cements are as follows:—

Indian Cement Factory.—"Ganapathi" brand at Rs. 55 per ton in bags of 1 cwt. f.o.r. Madras. This is equivalent to Rs. 9-3-3 per barrel of 373 lbs.

South India Industrials.—"Engine" brand Rs. 65 per ton in barrels of 375 lbs. f.o.r. Madras. This is equivalent to Rs. 10-14 per barrel.

If prices remain at the present level the consumption will depend on the demand. There is likely to be an increased demand on this Railway on account of the large development works in contemplation.

2. (*a*) Any considerable increase in price must retard the growth of consumption and similarly any considerable reduction in price will increase consumption.

(*b*) When the cost of cement is high it will not be used except for works for which its use is essential. The growth of cement consumption would be due to two causes, (1) the increase in the construction of works requiring cement, (2) the increased use of cement instead of other methods of construction.

The rise in price which would stop the growth of cement due to the second cause would not stop the growth due to the first cause to the same extent.

I am of opinion that no growth in consumption due to the second cause is probable with cement at its present price.

(*c*) With regard to the consumption dependent upon cause (2) *vide* reply (*b*) above, any increase in price will cause a decrease in consumption.

3. Cement at its present price cannot be used economically to replace lime.

The price of lime on this Railway varies from 8 annas to Re. 1-3 per *para*. The same quantity of lime by measurement as the contents of a barrel of cement will cost Re. 1 to Rs. 3, but the lower price is more general.

Lime mortar generally consists of 1 lime and 2 sand, but cement mortar of 1 cement and 4 sand would be preferable to lime mortar. It may be assumed that for any quantity of work the quantity of lime required would be double the quantity of cement, and taking the average price of lime at Rs. 2 per barrel, cement would have to fall to Rs. 4 per barrel for cement work to be executed at lime rates, but it is probable that at Rs. 5 per barrel cement would certainly compete with lime.

4. No Indian cement has been used by this department since the year 1919-20 and only about 250 barrels of Indian cement were used in the years 1917-18 and 1919-20.

The tests of two brands of Indian cement used were satisfactory. The test of the third was not so satisfactory. There was no complaint against these cements in actual use in foundations, etc.

The present prices of Indian cement f.o.r. Madras do not encourage their use instead of English cements which have an established reputation.

5. See answer to paragraph 4. No comparative experiments have been made.

6. Cement packed in bags is much more liable to deterioration than cement packed in barrels.

Our experience with Indian cement packed in bags many years ago was so unsatisfactory that we do not accept cement in bags.

With regard to the claim made by Indian Cement Companies, that the quality of the cements they manufacture is in all respects equal to that of British cement, and that the preference of imported cement is due to prejudice of users this may to some extent be true, as when Indian cement was first put on the market, and until recently, the general experience of users of the cement was that it varied in quality to such an extent that they would not take the risk involved in its use.

It must also be remembered that only time can give a really satisfactory test for cement, and while there are many works completed many years ago in which British cement was used, now testifying to the excellence of the material, there are few, if any, such examples of the durability of Indian cement.

A protective tariff on cement in order that the present high price of Indian cement may be maintained or increased would probably be fatal to Indian Manufacturers, as cement would under these circumstances only be used on very special works and in comparatively small quantities where other materials could not be used, and for such special works where the price would not be of first importance, users would prefer to pay the higher price of imported cement of established quality and reputation, rather than run the risk of using cement of doubtful quality.

If Indian cement Manufacturers could place a reliable cement in the market at a cheap rate, so that it might be used for many purposes in which it is prohibitive at present rates, and thereby quickly establish a reputation for quality, there would be no need for protective tariff, and the Indian Cement Trade would soon be in a position to hold its own with foreign competition.

Witness No. 26.

ASSAM BENGAL RAILWAY CO.

WRITTEN.

Replies to questionnaire (3) (a).

(Letter, dated 26th September 1924.)

With reference to your letter No. 743, dated the 22nd August 1924, I have the honour to send you herewith replies on the particular questions asked in regard to the development in consumption of Indian cement.

Situated as this Railway is close to large supplies of first class lime stone I do not foresee any large increase in the use of cement on this Railway.

The question of rates for carriage of coal on this line does not affect the price of cement.

Enclosure.

Replies to questions asked with regard to the protection of Indian cement by the Secretary, Tariff Board, Calcutta, in his letter No. 743, dated 22nd August 1924.

(1) At the present price of about Rs. 30 a ton an increase may be expected but not on a large scale.

(2) (*a*) Any increase.

(2) (*b*) 30 per cent. increase.

(2) (*c*) 50 per cent. increase.

(3) It can at its present price.

(4) Made in India generally. In 1922 the greater part was imported on account of the rise in price of Indian cement.

(5) Indian cement has been found sufficiently satisfactory, but is liable to considerable variation in quality particularly in time required for initial set.

(6) Yes; specially in the climate of Eastern Bengal and Assam, but preference would not be given to English cement to any appreciable extent on this account only.

(7) No.

Witness No. 27.

BENGAL NAGPUR RAILWAY COMPANY.

WRITTEN.

Statement I.—Replies to questionnaire No. (3) (a).

(Letter, dated the 26th September 1924.)

I have the honour to acknowledge receipt of your letter No. 743, dated 22nd August 1924, and very much regret the long delay in replying.

2. Dealing generally with the first 5 paragraphs of your letter I may say that unquestionably more cement is used at the present day on the Bengal Nagpur Railway than was used in the year 1909. We have no compiled figures of consumption and it would be exceedingly difficult to compile accurate figures but the increase is roughly in proportion to the increased size of the railway which measured by earnings and expenditure is roughly in the same proportion as figures quoted in paragraph 2 of your letter for the increased consumption of cement.

3. I think it would be reasonably safe to say that cement can never displace lime in India. Cement is very quick setting in comparison with lime and therefore the latter is far better suited to the standard of labour obtainable in India. Indian lime is of excellent quality and its price is only 1/10th of that of cement. The quality of Indian cement is good but it is quicker setting than English cement and is to that extent less suited for use by Indian labour.

4. The practice of packing Indian cement in gunny bags results in much of it being spoilt and this necessarily affects its value in comparison with English cement.

5. Dealing with paragraph 6 of your letter my answers are as follows:—

(1) No, not more than proportionate to the growth of the railway.

(2) (*a*) The consumption would be reduced proportionately to the price.

(2) (*b*) A 15 per cent. increase would probably suffice.

(2) (*c*) 20 per cent.

(3) Cement cannot be used as a substitute for lime unless it comes down to about one-fifth its present price.

(4) Indian 60 per cent.—English 40 per cent. English preferred on construction work on account of packing being superior, and generally because of being slower setting.

(5) A great deal of Indian cement is used. It is very fair—if not affected by weather in transit and if worked by quick workmen.

(6) Yes.

(7) (*a*) Although classified as 2 R.R. cement has on this railway been placed in C. schedule, the basis of which is:—

·30 pie per maund per mile up to 100 miles.
plus ·20 pie per maund per mile from 101 to 300 miles.
·18 pie per maund per mile from 301 to 600 miles.
·15 pie per maund per mile from 601 and beyond.

The above schedule also applies to bricks, bones, chalk, charcoal, clay, etc., which are of lower value than cement, and it would appear, therefore, that cement has had a liberal treatment.

It is probable that the Conference Standard Schedules may come into force shortly, in which case cement will be placed in one of them and it is possible that the charge for long distance traffic will be reduced.

No representations have been made to this railway that the existing rates generally are excessive or that they retard the development of traffic.

(7) (*b*) With regard to coal it would, of course, be impracticable to introduce special rates for coal used for the production of cement, or in other words cement manufacturers must pay the same freight on their coal as other coal consumers. The Tariff Board are probably aware that the question of railway freight on coal is one which is under constant public discussion. On broad general grounds I personally should be very glad if it were possible to reduce coal rates generally but the rates are already cut to such a low figure that I fear that any general reduction, at all events to the extent which would appreciably affect the cost of manufacturing cement in India, is hardly to be hoped for. Statistically I can show that the Bengal Nagpur Railway is losing money on every ton of coal it hauls. The statistical figures are not conclusive since it is impossible to ascertain the cost of carrying any particular class of traffic.

I may, however, support this by the reverse proposition, *viz.*, that statistically it cannot be shown that coal is carried on the Bengal Nagpur Railway at a profit. Without going into the point in greater detail I may summarise under this head by saying that it is impossible to quote special rates for the carriage of coal for the production of cement and that there are no prospects of a general reduction in the coal rates to an extent which would appreciably affect the cost of production of Indian cement.

Statement II.—Replies to questionnaire (3) (b).

No. 1.

(Letter, dated the 8th December 1924.)

With reference to your letter No. 1269, dated Poona, the 24th November 1924, I beg to inform you that as the collection of statistics for 3 years involved a considerable amount of labour, I have got out statistics for one year only, *viz.*, 1923-24, and hope this will meet the case. Shalimar and not Howrah is the main Bengal Nagpur Railway station, and during 1923-24, 22,201 maunds of cement were booked from Shalimar.

With regard to "Kidderpore Docks Statistics," the Traffic Manager, Port Commissioners, has been requested to furnish information to you direct.

No. 2.

(Letter, dated the 13th December 1924.)

With reference to the last paragraph of my letter No. A.-45-34 of 8th instant, I beg to say that the Traffic Manager, Port Commissioners, instead of furnishing the information to you direct has advised me that the following quantities of cement were despatched from the Kidderpore Docks and the jetties during the year 1923-24:—

	Maunds.
From the docks	10,702
From the jetties	31,987

Witness No. 28.

BURMA RAILWAYS COMPANY.

WRITTEN.

Replies to questionnaire (3) (a).

(Letter, dated 26th September 1924.)

With reference to your letter No. 743, dated the 22nd August 1924, I beg to reply as follows regarding paragraph 6 of the letter referred to.

Clause 1.—The consumption will remain normal. As the Railway increases, the use of cement will increase normally with the growth of the works to be carried out.

Clause 2.—If the price of cement increased, the normal consumption would not decreased appreciably. Cement is only used where actually necessary and this would not be affected by the price.

Clause 3.—No. Cement cannot be used economically to replace lime at its present price. Cement could not seriously compete with lime unless the prices of both commodities were brought about the same level.

Clause 4.—The whole of the cement on the Burma Railways is imported. Preference is given to the imported article on account of the packing.

Clause 5.—Indian cement has been used on this Railway. From actual experience it has been found that the lasting qualities of Indian cement are not as good as the English article.

Clause 6.—Yes, it has been found liable to deterioration when packed in bags and this is one of the reasons preference would be given to the imported article packed in barrels with a liner of water-proof brown paper. In spite of the utmost care English cement deteriorates in Lower Burma during the rains. There are also other reasons such as easier chances of theft and leakage from the bags.

Clause 7.—The matter of freight rates does not arise here since there are no cement factories or coal mines in Burma. Had we cement factories or coal mines situated up country we would no doubt quote favourable rates from the coal mines to the cement factories and from the factories to Rangoon.

We, however, already quote a low rate for consignments of cement in full wagon loads as follows:

Schedule E is a sliding scale rate as follows:—

Pies.	Distances up to
·88 per 100 viss per mile for . . .	165 miles.
·67 per 100 viss per mile for . . .	166 to 299 miles.
·55 per 100 viss per mile for . . .	300 miles and over.

This compares with 1·89 pies per 100 viss per mile for less than full wagon load lots.

For coal we quote a very low rate—

"*Smalls*" 1·50 pies per 100 viss per mile.

"*Full wagon loads.*" For the first 400 miles 0·67 pies per 100 viss per mile.

For the distance in excess of 400 miles 0·45 pies per 100 viss per mile.

The bed rock rate for both commodities is ·45 pies per 100 viss or 2·79 pies per ton per mile.

Witness No. 29.

GREAT INDIAN PENINSULA RAILWAY COMPANY.

WRITTEN.

Statement I.—Replies to questionnaire (3) (a).

(Letter, dated 16th October 1924.)

I beg to reply, as under, to the questions asked in paragraph 6 of your letter No. 743 of 22nd August 1924.

Reply.

1. No. There will, however, be some increase in the consumption of cement due to carrying out works included in the five years' programme, but it will not be a substantial increase.

2. We have lately been purchasing cement at Rs. 30 and Rs. 34 per ton f.o.r. works. The cost of cement forms so small a proportion of the total cost of most of our works that a moderate increase of price, say, 10 to 15 per cent. would have no effect. An increase of 50 per cent. would probably cause a decrease.

3. At present prices, cement cannot be used economically in place of lime except for a small number of works which have no appreciable effect on the consumption of cement. At Rs. 20 per ton cement would begin to compete seriously with lime.

4. We have used no imported cement since 1918.

5. Indian cement has been extensively used and has been found to be satisfactory.

6. Indian cement stored in bags is certainly more liable to deterioration if kept during the monsoon; we have had some losses from this cause. Our practice, however, is to obtain supplies as required and not to store cement for any length of time. It would be an advantage if Indian cement were packed in barrels instead of bags but I do not think that the difference has, in the past, told against Indian cement. The English cement is barrelled but it has to make a long sea voyage and has to be stocked in larger quantities than India.

7. (*a*) The freight rates on this railway for cement are very low and it is not possible to reduce them further.

(*b*) Coal rates from the Pench Valley in local and through booking to the Bombay, Baroda and Central India Railway have been reduced only recently. They are now, I believe, the lowest coal rates in India and no further reduction is likely. They do not, however, apply at present in through-booking to East Indian Railway and Bengal Nagpur Railway.

Statement II.—Replies to questionnaire (3) (b).

(Letter, dated 20th December 1924.)

With reference to your letter No. 1271 of 24th November 1924, I beg to state that ordinarily cement is charged over this railway at "G" schedule rate.

2. A special rate of Re. 0-7-10 per maund is, however, granted at present in the case of all consignments booked *to Bombay from Banmor* (G. I. P. Railway) and those booked *from* viâ *Katni* by the cement factories on the

Jubbulpore Section of the E. I. Railway, and it compares with the "G" schedule rate as under:—

	Rate per maund.					
	Special.			"G" Schedule.		
	Rs.	A.	P.	Rs.	A.	P.
Banmor to Bombay . .	0	7	10	0	9	11
Viâ Katni to Bombay . .	0	7	10	0	9	9

The conditions for the carriage are the same in both cases, *viz.*, in full wagon loads at owner's risk, charges calculated on the carrying capacity of wagons used, loading and unloading to be done by senders and consignees.

3. The quantities of cement despatched by this Railway from Bombay to stations up-country during the years 1922-23 and 1923-24 are 219,988 and 158,681 maunds respectively. It is regretted that the figures for 1921-22 are not available.

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Witness No. 30.

-OUTH INDIAN RAILWAY COMPANY.

Replies to questionnaire (3) (a).

(Letter, dated 4th November 1924.)

With reference to your letter No. 743 of 22nd August 1924, I have the honour to offer the following remarks on the questions asked dealing with them in the order in which they are given:—

(1) There has been a marked tendency all over the world in recent years to extend the use of cement in engineering structures. This development of the use of cement has been less rapid in South India than in most parts of the world owing to the difficulty of ensuring adequately trained subordinate superintendence. This difficulty is gradually being overcome and I think it may be safely stated that if the price of cement remains at about its present level there will be a substantial though probably not very rapid increase in the consumption of cement for railway purposes.

(2) (*a*) Any increase in the present price of cement must necessarily retard the growth of consumption.

(*b*) An increase of 15—20 per cent. in the present price of cement would probably stop the growth of consumption altogether.

(*c*) An increase of 25—30 per cent. on the present price of cement would probably produce an actual decrease in consumption.

The relative prices of various materials which affect the economical use of cement are complex and inter-dependent and hence the answers to (*b*) and (*c*) above cannot be based on definite facts and can only be very rough approximations.

(3) We have not found it possible to use cement at its present price level to replace lime to any extent worth mentioning. Experiments in this connection have been recorded by Messrs. Killick, Nixon & Co., and the results have been noted with interest. If its present price were reduced by 25—30 per cent. cement could probably compete seriously with lime.

(4) The bulk of the cement used on the South Indian Railway is imported. The reason for the preference is almost entirely economical.

The difference in price between cement procured on Home indent and Indian cement is extremely small and often in favour of the cement procured on Home indent. The imported cement is better packed and the loss in transit consequently less. We have also found the Indian cement less regular in quality than the imported cement a result possibly accounted for by deterioration in transit owing to less efficient packing. Up to date our tests have been made for the most part at the request of cement manufacturers anxious to supply us with cement, and have in consequence been sporadic and the records have been kept in a form which renders comparison of results now difficult and insufficiently definite to be conclusive. In view of the interest which is now being taken in the manufacture of cement in India we are arranging to carry out systematic tests on a much more extensive scale. The governing factor, however, is as heretofore the actual cost of cement of suitable quality delivered on the work.

(5) Indian cement has been used on the South Indian Railway but, on the whole, its quality has not been so satisfactory as that of imported cement. Please see the reply to (4) above.

(6) Yes. The loss of Indian cement both in handling and during storage is greater than the loss of imported cement and due consideration had necessarily to be given to this fact when comparing the prices of Indian and imported cements.

(7) (*a*) Our rates for cement and coal are already very low.

Paragraph 6.—Any tariff put on cement must necessarily increase the cost of capital works and maintenance in the same manner as the tariff put on steel is doing though of course to a much smaller extent.

Witness No. 31.

BOMBAY, BARODA AND CENTRAL INDIA RAILWAY COMPANY.

WRITTEN.

Statement I.—Replies to questionnaire (3) (a).

(Letter, dated 23rd October 1924.)

With reference to your letter No. 743, dated 22nd August 1924, I beg to give my opinion on the points raised, seriatim, as follows:—

(1) With the price of cement at its present level there is not likely to be a substantial increase in the consumption of cement for railway purposes.

(2) An increase of about 5 per cent. would stop the growth of consumption; an increase of less than that would retard the growth and an increase of more than that percentage would decrease the consumption.

At present a flat reinforced concrete roof is somewhat cheaper than one of Mangalore tiles on sawn rafters and trusses, but the difference is small, and an increase in the price of cement would probably lead to the reinforced cement roof being given up.

(3) Cement at its present prices cannot, except in a few instances, be used economically to replace lime, but at a price of Rs. 35 per ton cement would begin to compete with lime. It would begin to compete seriously if there were no likelihood of the price of lime falling as the result of competition.

NOTE.—The figures given in the above replies are of a general and approximate nature. The calculations will, of course, vary considerable for different localities according to the distances of the source of supply of the materials compared, namely, cement, lime, ballast, sand, steel, bricks, building stores, etc.

(4) The bulk of the cement used on the Bombay, Baroda and Central India Railway is made in India.

(5) Its quality has been found satisfactory and equal to that of cement imported from Europe.

It is not the quality of the cement that retards its use, but the two facts that at its present price it is uneconomical to use in preference to other materials and that it requires a good deal of care in its use, especially in the case of reinforced concrete.

Except in Bombay, where there are firms who specialise in reinforced concrete work, the Indian contractor and mason has had little experience in the use of cement and requires more supervision that a District Engineer is able to give.

(6) No serious deterioration has been noticed in Indian cement owing to its being packed in bags. It does require somewhat more care in protection from the weather than if it were packed in barrels.

(7) As regards freight on cement, we have only one cement works on our line, *viz.*, at Lakheri and we already quote them a special low rate, *viz.*, Rs. 0-7-5 per maund which is equivalent to Rs. 12-9 per ton from Lakheri to Bombay. We also quote a special reduced rate for Porebandar and Dwarka cement from *viâ* Wadhwan to Bombay equivalent to Rs. 9 per ton, and there are also several other special reduced rates we have quoted for cement from Lakheri to other important centres. As regards coal, this traffic is charged at a special scale of telescopic rates, sanctioned by the Railway Board, and it is calculated on the through distance from the collieries to the destination station. It is not possible to reduce these rates which are already low.

Statement II.—Replies to questionnaire (3) (b).

(Letter, dated 18th December 1924.)

With reference to your letter No. 1272 of 24th November 1924, I beg to state that we have only one Cement Factory on our line, *viz.*, at Lakheri and we charge them a special reduced rate of Re. 0-7-5 per maund to Bombay against the ordinary rate of Re. 0-8-10 per maund. We also quote a special reduced rate of Re. 0-5-4 per maund for Porbander and Dwarka Cement from *viâ* Wadhwan to Bombay against the ordinary rate of Re. 0-6-0 per maund.

The quantity of cement despatched from Bombay to stations up-country by this railway during the year ending March 1924 is as follows:—

	Maunds.
From B. P. T. Railway stations (Docks) . .	84,761
From Carnac Bridge	33,867
	118,628

Figures for the years 1921-22 and 1922-23 are, I regret, not available.

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Witness No. 32.

EAST INDIAN RAILWAY COMPANY.

WRITTEN.

Statement I.—Replies to questionnaire (3) (a).

(*Letter, dated 23rd December 1924.*)

With reference to your letter No. 743, dated 22nd August 1924, regarding your enquiry into the present state of the cement industry, I beg to reply to the points raised therein seriatim:—

(1) Cost is undoubtedly the main factor in the extension of the use of Indian cement in this country.

(2) (*a*), (*b*) and (*c*). It is difficult to say what percentage of increase in the present price of cement would be likely to retard or arrest the growth of consumption of Indian cement. It may be possible, however, by plotting a curve of prices for the past few years and a curve for consumption to see the relation between the price and demand. And it would be reasonable to assume that increasing prices would react upon demand in an inverse ratio. Until, however, the use of cement is more general than it is at present and masons and mistries are familiar with its properties, there is bound to be some reluctance on the part of engineers and builders to use cement in situations where supervision is difficult to exercise and skilled labour is difficult to procure.

(3) There are circumstances in which cement could be used as economically as lime, but it is not possible to say at what price cement would begin seriously to compete with lime.

(4) Most of the cement used on the East Indian Railway is of Indian manufacture.

(5) The quality of Indian cement used on the East Indian Railway is quite satisfactory, and so far as I am aware, as good for the purposes required as imported cement.

(6) The fact that Indian cement is packed in bags instead of barrels is a disadvantage. On the other hand, it is always possible to obtain supplies of fresh Indian cement, which is not the case with imported cement.

(7) As regards the reduction in freight charges on cement and coal, I much regret being unable to do anything in this direction as the existing rates for both the commodities are already on a sufficiently low basis.

Statement II.—Replies to questionnaire (3) (b).

(Letter dated 19th December 1924.)

With reference to your letter No. 1268, dated 24th November 1924, I am directed to inform you that cement is charged over this railway at "C" schedule rate subject to the condition O. R., C. C., L. The basis of this schedule is as under:—

1 to 75 miles	·38 pie per maund per mile.
Plus 76 to 300 miles . . .	·18 pie per maund per mile.
Plus 301 miles and above . .	·10 pie per maund per mile.

The existing special rates for cement from the current despatching centres to Howrah as compared with the corresponding "C" schedule rate are as follows:—

From	Special rates per maund.			"C" Schedule rates per maund.			Difference.		
	Rs.	A.	P.	Rs.	A	P.	Rs	A.	P.
1. Messrs. Martin & Co.'s Cement works siding, Japla.	0	4	0	0	7	0	0	3	0
2. Jukehi	0	6	8	0	9	5	6	2	9
3. Katni Cement siding	0	7	0	0	9	7¼	0	2	7¼
4. *Viâ* Agra East Bank for traffic from Lakheri.	0	7	1	0	10	6	0	8	5
5. *Viâ* Manikpur for traffic from Banmor .	0	6	5	0	8	8	0	2	3

I am to inform you that the figures of traffic for cement are not separately compiled on this railway, but we are informed by the Port Commissioners that 55,238 maunds, 20 seers of cement were despatched from Docks and Jetties to stations on the East Indian Railway and *viâ* for the year 1923-24. Figures for the earlier years are not available.

Witness No. 33.

FISCAL REFORM LEAGUE, INDIA, BOMBAY.

WRITTEN.

Copy of representation of the Fiscal Reform League, India, dated 1st March 1924, to the Government of India, Department of Commerce.

I have the honour, by direction of the Executive Council of the Fiscal Reform League, India, to submit to you the following representation with reference to the cement industry in India.

This is an industry essential to the growth of large scale modern industry, which has rendered excellent service to the State in the last Great War, and which has built up a productive organisation more than sufficient for local market. It has, nevertheless, come to suffer from a variety of hardships, which the Council of the League understands its organisers have already detailed before the Tariff Board, and which, I may add, are such as to be entirely beyond its control. Under the circumstances, the industry demands a protective treatment in the tariff regulations of the country and by other means mentioned in their letter to the Tariff Board, which the Council of the Fiscal Reform League, India, feels would suffice to ensure its standing and future. In the interests of this country's general industrial development, the Council considers it most desirable to grant the request, and trusts the Government will take early opportunity to do so.

Witness No. 34.

THE INDIAN MERCHANTS' CHAMBER, BOMBAY.

WRITTEN.

Copy of representation of the Indian Merchants' Chamber, dated 8/9th February 1924, to the Government of India, Department of Commerce.

I am directed to draw attention of the Government of India to the representation jointly addressed by all the Cement Companies working in this country to the Tariff Board, a copy of which is also sent to you.

The joint representation has set forth in details all the different grounds on which assistance is sought from the Government. My Committee would like to emphasise, however, specially the inequality between Railway and Sea Freight which gives an undue advantage to foreign cement manufacturers in their competition with indigenous concerns at Ports. The freight from Gwalior to Bombay is about Rs. 17 per ton as against only about Rs. 9 per ton from Japanese ports to Bombay and about Rs. 14 per ton from British ports to Bombay. Freight from Katni to Bombay is Rs. 13-11-0 and from Jubbulpore to Bombay is Rs. 15. It will be thus seen how great an advantage foreign Cement Manufacturers have in this matter of freight as against their Indian competitors. Freight from Porebunder, which is one of the manufacturing places for cement, to Bombay is Rs. 6 as it is a sea-route but freight to Calcutta is Rs. 20 per ton also by sea while freight from Japanese ports to Calcutta is about Rs. 9 only. Freight to Calcutta from Katni, Gwalior and Jubbulpore respectively is Rs. 12-4-0, Rs. 21 and Rs. 17-8-0. It will be seen from the figures given below that huge quantities of cement are still being imported from the United Kingdom, Belgium, Japan and other foreign countries to the detriment of the indigenous industry, in spite of the fact that the indigenous supply is far in excess of the total requirements of the country.

Imports of Cement.

	1920-21.	1921-22.	1922-23.	For 1st April 1923 to 31st December 1923.
	Tons.	Tons.	Tons.	Tons.
From the U. K. .	123,283	79,886	96,976	71,712
From Belgium . . .	2,500	5,118	4,776	1,764
From Japan . .	410	18,836	4,238	59
From other Foreign countries . . .	4,528	20,887	28,125	10,279
	130,721	124,727	134,115	83,814

My Committee are still making inquiries regarding freight from British Ports to Calcutta and to Persian and African ports. But the information which they have received already and are communicating hereby to Government is sufficient to prove the necessity for some protection to the Cement Industry. Looking to the fact that the production in the country has outstripped the consumption there is no reason why a single ton of foreign cement should be imported into this country.

My Committee, therefore, beg in conclusion to request the Government to be pleased to take all the facts and the joint representation of Cement Companies in their kind consideration and to take such steps including reference to the Tariff Board as may be necessary to give help to this important industry.

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Witness No. 35.

COMMISSIONERS FOR THE PORT OF CALCUTTA.

WRITTEN.

Statement I.—Written representation, dated the 14th May 1924.

I beg to refer to the Department of Commerce's Resolution No. 38-T., dated the 10th April 1924, in which it is stated that the Government of India have decided to refer to the Tariff Board for examination applications for protection received *inter alia* from the cement industry, and inviting firms or persons interested in industries dependent on the use of this article, who desire that their views should be considered by their Board, to address their representations to you.

The Calcutta Port Trust purchases from time to time considerable quantities of Portland cement for use both on capital and on maintenance works and for some time past it has been found that the cement manufactured in India, and offered by one or other of the agencies concerned in the marketing of Indian-made cement, has been offered at prices markedly more favourable than that of the cheapest imported cement. As the quality of Indian-made cement has been proved, both by analysis and by our practical experience, to be satisfactory, the result has been that the orders of the Calcutta Port Trust have latterly without exception been placed with one or other of the agencies selling Indian-made cement. Thus at their meeting held on the 4th June 1923 when the Commissioners considered tenders received for 5,000 tons of cement required for the King George's Dock construction, the lowest tender received for imported cement was at the rate of Rs. 63-10-5 per ton, while tenders for Indian-made cement were made at Rs. 52, Rs. 54 and Rs. 58 per ton. Again at their meeting held on the 11th February 1924, tenders for a further quantity of 5,000 tons were considered and those received compared as follows:—

Lowest figure--English imported--Rs. 68 per ton,

Lowest figure—Continental—Italian--imported--From Rs. 53-12-2 to Rs. 62-11-6,

Lowest figure—Indian-made—From Rs. 43-13-0 to Rs. 52,

and in both cases orders were placed for Indian cement at the lowest price offered.

These figures appear to the Port Commissioners to show that the considerable natural advantages which Indian cement already possesses, combined with the existing rate of duty and the cost of freight and insurance on imported cement, will make it practically impossible for the latter to compete with the former, and that this is the case even when imported cement is manufactured in a country the currency of which has undergone heavy depreciation, as compared with normal rates of exchange. The Commissioners, therefore, are of opinion that the Companies manufacturing cement in India cannot be considered as in need of any enhanced import duties and they are confirmed in this belief by the fact that in spite of the difficulties to be encountered during the early days of any industry, those of the Indian Companies which have enjoyed the benefit of good management have found themselves for years in a position to pay satisfactory dividends to their shareholders. They desire, therefore, to enter an emphatic protest against the proposal to increase the duties on imported cement, as they consider that such a measure would merely result in enhancing at the expense of the consumer or the tax-payer the profits of an industry already well-established.

Statement II.—Further representation, dated 3rd July 1924, received from the Chairman, Calcutta Port Trust.

With reference to this office letter No. 5247, dated the 14th May 1924, I have the honour to inform you that the Commissioners recently invited tenders for the supply before the end of the present calendar year of a further quantity of 6,000 tons of cement. A comparative statement of the prices quoted for Indian and imported cements is given below:—

	Lowest quotation per ton.			Highest quotation per ton.		
	Rs.	A.	P.	Rs.	A.	P.
Indian-made cements . .	36	12	0	47	8	0
English cement	58	15	7	64	15	4
Continental cement—Italian .	52	4	3	52	4	3

The lowest rate for English imported cement is based on tenders received by the Commissioners' London Agent for delivery f.o.b. England with proper allowance for freight, insurance, duty, landing charges and removal to the Kidderpore Docks. In the case of the other tenders, the quotation was for delivery f.o.r. Kidderpore Docks.

Statement III.—Replies to Questionnaire (5).

(Letter dated 13th January 1925.)

With reference to your letter No. 1297, dated the 2nd December 1924, I have the honour to reply that if the price of Indian cement were to increase substantially, there would certainly be less chance of its competing with lime. As it is, the Commissioners are now using Indian cement at Rs. 36-12-0 per ton which has so reduced the price of cement brickwork as to bring it very near the cost of lime brickwork. The cost of cement brickwork is now Rs. 48 per 100 cubic feet against the cost of lime brickwork at Rs. 45 per 100 cubic feet and the difference is so small that an engineer is tempted in many cases to employ cement as the stronger and more reliable article.

Indian cement is found to be equal in all respects to that of imported cement and I would reply seriatim to the points referred to in paragraph 5 of your letter under reply as follows:—

(1) Lime is an unstandardized material and in spite of the fact that Indian cement has not yet been subjected to the test of time, it is always felt that less risk attaches to its use than to the use of lime, more particularly in damp situation; and, had Indian cement been obtainable at the present low rate when the construction of King George's Dock was started, the execution of the whole of the work in cement would have been seriously considered. The use of cement in place of lime was actually advocated by two experienced engineers, who were consulted by the Commissioners, with the price of cement at its then high level and would have meant the Commissioners buying an additional 70,000 tons of cement.

(2) (*a*) A 15 to 20 percentage increase in the present low price of Indian cement would begin to retard its consumption.

(*b*) If the price began to approach that of British cement, the consumption of Indian cement would cease. British cement has the test of time in its favour and is supplied in barrels which protects it better from the weather.

(*c*) A 15 to 20 percentage increase in the price of Indian cement would produce a decrease in consumption, as at such a price engineers would fall back upon lime in many cases where they would otherwise have used cement.

(3) Cement at Rs. 26-6-0 a ton would probably oust lime altogether.

(4) The quality of Indian cement has been found by the Commissioners to be satisfactory in every way and equal in strength and composition to that imported from Europe.

(5) Some loss is sustained by Indian cement being supplied in bags as they are more readily damaged and the cement is liable to become damp in wet weather, also the bags get torn and the cement runs out. British cement in barrels also suffers in some degree from the effect of damp. If the price of imported cement were but slighlty higher than Indian cement it would only be in very special cases that preference would be given to the imported article in place of the cheaper and equally good Indian cement.

I may further state that in the King George's Dock, the Commissioners have used over 30,000 tons up to date of which 24,000 tons have been Indian cement.

Witness No. 36.

BOMBAY PORT TRUST.

WRITTEN.

Replies to questionnaire (5).

(Letter, dated 13th January 1925.)

With reference to your letter No. 1296, dated 2nd December 1924, addressed to the Chairman, I am directed to reply as follows to the points on which the Tariff Board desire an expression of opinion:

1. If the price of cement remains about its present level, the Port Trust will be encouraged to use it, for example, in constructing walls of buildings in pre-cast blocks. Concrete block walls are at present preferable to brick walls, because the bricks procurable locally are of a very inferior quality; but if brick manufacturers in the future produce bricks equal to European bricks these would compete with concrete blocks.

It is probable that cement concrete will be more largely used in constructing roads in the future. The price of cement will form an important factor to be considered before deciding to adopt this type of construction for roads. If the price of cement remains at about its present level (say, Rs. 45 per ton delivered in Bombay) it is likely that it will be much more used by the Trust than it would be if the price is raised, but it is not easy to predict whether the consumption will be more or less than in previous years.

2. (*a*) An increase of 10 per cent. in the present price would be likely to discourage the use of cement.

(*b*) An increase of 50 per cent. would practically stop the growth of consumption.

(*c*) An increase of 65 per cent. would cause a decrease in consumption.

3. Cement mortar can be used at its present price level to replace lime mortar in good class brickwork or masonry.

4. Some Indian cement has been found quite satisfactory and equal to imported cement, but on the other hand some supplies of useless cement have been delivered which have had to be rejected. Indian cement has not yet made a reputation for being of uniform good quality.

5. Cement stored in bags during the monsoon in Bombay does deteriorate. The risk of loss owing to the bags of cement getting air set or wet is considerable at that season of the year. Other things being equal it would be advisable to incur some extra expense for the barrels for cement which is to be stored or used during wet weather or in a humid atmosphere.

Witness No. 37.

BURMA CHAMBER OF COMMERCE.

WRITTEN.

Statement I.—Representation, dated 27th June 1924.

With reference to Government of India, Commerce Department, Resolution No. 38-T., dated April 10th, 1924, which notifies that the Tariff Board will examine the applications of certain named Industries for Protection, I am directed to address you on the subject of cement.

2. There is no trade in Burma in cement manufactured in India. The attempts made by users here to employ it have hitherto proved unsuccessful, and the main reason for this failure appears to be that Indian manufacturers have been unwilling, rather than unable, to take any interest in the Burma market, the presumption being that in the past they had a more than ample market for their produce at their own doors. Quality is, of course, a matter of vital importance and such sample shipments as have been imported from India have prejudiced the chance of repeat orders by proving entirely unsatisfactory owing to the cement having been in gunnies or some other form of package which afforded no protection from weather or atmosphere. A large proportion thus proved unusable.

3. Hitherto only one attempt has been made to produce cement in Burma but the product was found to be unsatisfactory and the works had to close down.

4. This province is accordingly dependent on imports from abroad. Part of the supply was until recently Green Island Cement from Hongkong, but this source is at present closed, apparently owing to demand from Japan since the earthquake, and European Portland cement now holds the market and is selling at Rs. 11-8 to Rs. 12 per cask of 400 lbs. gross or 375 lbs. net.

5. The importance of the Burma consumption can be seen from the following customs figures which include Government imports :—

	Quantity.			
	1919-20.	1920-21.	1921-22.	1922-23.
	Tons.	Tons.	Tons.	Tons.
Whole of India and Burma .	78,212	135,397	124,679	136,073
Burma	10,588	20,192	25,620	29,135
„ Percentage . . .	13·5%	14·9%	20·5%	21·4%
	Value.			
	Rs.	Rs.	Rs.	Rs.
Whole of India and Burma .	79,00,860	1,42,43,749	1,37,70,078	1,05,35,894
Burma	9,47,740	21,93,154	28,57,174	25,21,173
„ Percentage . .	12%	15·4%	20·7%	23·9%

6. These figures help to demonstrate the efforts which are being made in Burma to overtake the lack of development of the province in the past; but, as so little progress has yet been made and in view of the large programmes of constructional work ahead both in communications and buildings, it is clear that Burma must continue for very many years to show an expanding demand.

7. Even if the present enquiry by the Tariff Board should indicate that Indian manufacturers are suffering from temporary disabilities which necessitate State assistance to enable them to survive, a point on which we do not propose on this occasion to argue, Burma is unlikely to be in any way a gainer from their being more firmly established, owing to the permanent handicap of high transport and handling charges between India and Burma.

8. In view of her share of the population of India being only 4 per cent., it is clear that Burma must put forward the very strongest opposition to any assistance, which it may be decided to give to Indian manufacturers, taking the form of a protective customs tariff with general effect. Even on present figures this would result in Burma paying 7/8 times her proper share and it is therefore necessary to urge that assistance, if any, should be given by means of bounty. It is already clear that merely for revenue purposes Burma is suffering to this extent. An additional advantage of the bounty method would be that it could be applied subject to stringent conditions with regard not only to quality at site of manufacture, but to standard of packing, in order to ensure satisfactory condition on arrival at destination.

सत्यमेव जयते

Statement II.—Letter dated 8th September 1924, from the Burma Chamber of Commerce.

After perusal of the evidence recorded in the publication of the Indian Tariff Board received with your letter No. 682, dated 28th July 1924, my Committee find little to add to the representation contained in my letter of 27th June.

A claim is put forward on the evidence that one of the principal handicaps from which the cement industry in India is suffering is the prejudice which exists against Indian brands. It has, however, been clearly brought out by the questions to which the witnesses were subjected that such a claim cannot be substantiated so far as Burma consumption is concerned. It is only necessary to point out that foreign suppliers have had the enterprise to discover that cement for Burma has to be packed in casks, with an extra precaution in many cases of a lining of waterproof paper, in order to ensure its delivery in good condition. Until the Indian manufacturer has adopted a form of package which will produce the same results and has satisfied the consumer here, it is not open to him to use prejudice as an argument in this case for protection when the Burma market is under consideration.

Even then, as other parts of the evidence have clearly shown, the high transport and terminal charges seem bound to operate permanently against the chance of Indian cement being able to hold out against foreign competition. Burma must therefore consider herself entitled to exemption from the tariff protection of cement on the basis of the arguments used by the Fiscal Commission and evidently also recognised by the Tariff Board.

In view of these facts my committee do not propose to discuss the weakness inherent in the position of the Indian companies, which are brought out in the evidence as throwing doubt on their power even in India eventually to do without protection. This was one of the criteria on which the grant of protection was to depend. It appears that the Tariff Board are fully alive to these points and I am accordingly directed to confirm my letter of 27th June 1924.

सत्यमेव जयते

Witness No. 38.

COCANADA CHAMBER OF COMMERCE.

WRITTEN.

Written Statement, dated the 19th August 1924.

I am directed to forward the accompanying representation from the Cocanada Chamber of Commerce for due consideration of the Tariff Board, and to state that this Chamber does not propose to give oral evidence.

Representation by the Cocanada Chamber of Commerce.

The Chamber is opposed to the proposal to raise the present duty on imported cement.

The indigenous industry is already protected by a duty of Rs. 9 a ton, by the amount of rail and sea carriage paid by importers and by cheaper labour. With these advantages the cement industry in India should, with ordinary good management, more than hold its own.

Cheap cement is indispensable to India, and any artificial raising of the price would unnecessarily add to the cost of building and construction work and handicap industries in general.

This Chamber is, therefore, of opinion that the interests of the country would be ill-served by protecting the cement industry.

सत्यमेव जयते

Witness No. 39.

BENGAL CHAMBER OF COMMERCE.

WRITTEN.

Written Statement, dated 20th August 1924.

I am directed by the Committee of the Bengal Chamber of Commerce to acknowledge the receipt of your letter No. 681, dated 28th July 1924, with reference to the proposal for the grant of protection to the Indian cement manufacturing industry.

2. In reply to your request for the views of the Chamber on this question, I am to submit the following expression of opinion, and I am also to say that it is not the intention of the Committee to depute a representative to give oral evidence before the Board.

3. I am to state, in the first place, that the Committee have given careful consideration to the published evidence of the eight manufacturing companies who have made the application for protection, and that they find nothing in the arguments put forward in this evidence which appear to them to justify the grant of protection. Of the eight companies five have not yet been able to afford a return on the capital invested in them, while the other three companies have paid the following average dividends:—(*a*) 5·8 per cent. for the years 1914—1923; (*b*) 31·78 per cent. for the years 1917—1923; and (*c*) 158 per cent. for the years 1914—1923. In addition to this, these three companies have also been able to place to reserve out of surplus profits, Rs. 1,00,000, Rs. 17,30,000 and Rs. 12,00,000, respectively. From these figures the Committee derive the conclusion that the cement industry has been able to establish itself in India without the aid of protection.

4. It has also to be noted that the five companies which have paid no dividends were floated in 1919 and 1920, that is to say, at the height of the boom period. They are consequently more heavily capitalized than the older companies which have paid dividends; and it is fair criticism for the Committee to say that these companies ought to be placed on a paying basis by the writing down of capital, and by reconstruction, rather than by burdening the consumer with increased costs. Many other companies have had to adopt this method and it would be, in the opinion of the Committee, altogether wrong to penalise the consumer of cement because the depressed trade conditions of the world have heavily burdened these over-capitalised concerns. This burden these companies ought to bear themselves just as many other companies similarly placed are being compelled to do. That the consumer will be penalised by protection is to the Committee obvious, for they cannot subscribe to the doctrine that protection will mean lower prices. The history of protective duties throughout the world lends no support to this contention.

5. The Committee have examined the relative costs of imported cement and Indian manufactured cement, and they note that recent quotations show an advantage to the Indian article of about Rs. 20 per ton in Calcutta. They have also had the benefit of the reports of experts to the effect that the Indian article is equal in all respects to the imported article. It would seem, therefore, to be a question of time only until consumers will naturally accept Indian in preference to imported cement.

6. Nor do the Committee fear that without protection the country will lose the cement industry, which did valuable service during the war. For the three companies which were in existence before and during the war appear to be in an extremely sound condition. They do not, therefore, need any

help and the five companies which were formed after the war came to an end cannot lay claim to having performed any national war services.

7. On the question generally the Committee take the view that the present set-back in the cement industry, if such there be, is probably due to the dearth of constructional work and to internal competition. But on the figures before them it is certainly not due to competition with imported cement, which costs on an average Rs. 20 per ton more, and which is not, in the view of the expert evidence available to the Committee, in any way a superior article.

सत्यमेव जयते

Witness No. 40.

BOMBAY CHAMBER OF COMMERCE.

WRITTEN.

Written statement from the Bombay Chamber of Commerce, dated the 11th September 1924.

I am directed to acknowledge the receipt of your letter No. 681, dated the 28th July 1924, with reference to the proposed protection of the Indian cement manufacturing industry.

2. In reply to your request for an expression of my Committee's views on the claim put forward by the applicants I am to observe that after further consideration my Committee are still of the opinion which they conveyed to the cement companies in 1923, namely, that the arguments urged in support of their claim, when examined in the light of the circumstances in which it is made, are not such as to justify the industry's demands.

3. The weakness of the cement manufacturing companies' case lies, in the opinion of my Committee, in the extent to which their number was increased during the boom period of 1919-20 by the formation of a number of concerns, the promoters of which were obviously more anxious to secure a share of the profits enjoyed by the industry during the war period than by careful selection of areas both of consumption and supply to secure and maintain their position in the more difficult post-war period. In the circumstances my Committee feel that it is in the highest degree unfair and undesirable to prolong what they can only regard, from a perusal of the oral evidence tendered by the concerns in question, as the precarious existence of such companies by conceding a measure of protection at the expense of the consuming public, nor are they satisfied that the imposition of even so prohibitive a rate of duty as is proposed is likely to achieve the desired result, in the absence of any attempts of reorganisation on the part of the companies themselves.

4. The position of the pioneers of the industry on the other hand is so strong that once they are freed from the embarrassing attentions of the other concerns mentioned in the previous paragraph they are unlikely to experience any difficulty in competing with the foreign product. My Committee accordingly consider that viewed from either aspect the claim of the cement industry to protection is not justified by the circumstances of the case and should be resisted.

5. My Committee do not desire to give oral evidence.

Witness No. 41.

THE KARACHI CHAMBER OF COMMERCE.

WRITTEN.

Letter, dated 7th August 1924, from the Karachi Chamber of Commerce.

I have the honour to acknowlede receipt of your letter No. 683, dated 28th July 1924, and its enclosure on the above subject.

In reply I am directed to address you as under :—

1. This Chamber is strongly against the granting of protection to cement industry.

2. It considers that the granting of protection would reflect seriously against the economical industrial development and would adversely affect the betterment of the housing of the people of this country.

3. That should a measure of protection be granted it should be by a bounty decided annually on a basis limited to such an extent as will keep the industry alive and only be granted where economical working and efficient management is maintained.

सत्यमेव जयते

Witness No. 42.

INDIAN ENGINEERING ASSOCIATION, CALCUTTA.

WRITTEN.

Replies to questionnaire (4).

(Letter dated the 13th September 1924.)

I am directed to acknowledge the receipt of your letter No. 742, dated the 22nd August 1924, with reference to your investigation of the claim of the Indian cement manufacturing industry for the grant of protection.

2. In reply I am to say that the Committee have carefully considered the questions which you put, and they endeavour below to reply to these as far as possible. But the members of this Association are, as is probably known to you, chiefly manufacturing engineers. They are not largely interested in building work except structural steel work; and they are not therefore in a position to offer useful opinion as regards certain of the questions.

3. The first question is: "Is it likely that if the price of cement remains at about its present level, there will be a substantial increase in the consumption of cement for constructional purposes"? In reply the Committee would observe that the question of increasing consumption depends upon quality as well as upon price. If Indian cement maintains its present quality, and if its price remains at about its present level, they would anticipate an increase in consumption for constructional purposes. That is to say, they would be disposed to think that, if Indian cement is good in quality and low in price, it will be used more extensively than it is now in constructional work. But the quality must be kept up to the level of the British standard.

4. With questions (2), (3) and (4) the Committee cannot deal, as I have already intimated. They notice that your letter has been addressed to Messrs. Martin and Co., and Messrs. Mackintosh Burn Ltd., and they think that these firms will be able to answer these particular enquiries more satisfactorily than they could do.

5. The fifth question is: "Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels; and is it likely that on this ground preference might be given to imported cement even if the price were higher"? The Committee certainly think that cement packed in bags is more liable to deterioration than cement packed in barrels, seeing that jute bags take up moisture, and that their use may also cause defects due to aeration. They do not know to what extent this disadvantage restricts the consumption of Indian cement, but they believe that it must have a restrictive influence.

6. In reply to your concluding paragraph, I am to say that the Committee have read the evidence, written and oral, which has been tendered to the Board by the cement manufacturing companies in support of their claim for protection. They do not propose to discuss the matter at length, but they certainly do not consider that the manufacturers have made out a good case for protection; and it is their opinion that the claim should not be entertained by the Board.

Witness No. 43.

MESSRS. JESSOP & COMPANY, LIMITED.

WRITTEN.

Replies to questionnaire No. V, dated 29th August 1924.

With reference to your circular letter No. 741, dated 22nd August 1924. We are not ourselves large consumers of cement, but as merchants we handle a considerable turnover. We do not wish, however, to express our opinion orally, but we give below a few facts in reply to your questionnaire on the position as it appears to us.

(1) Mortar for ordinary builders' work above ground is made of lime costing Rs. 70—75 per 100 maunds measured as being equal to 225 cubic feet.

Taking artificial cement to be worth three times an equal quantity of the above it would have to be sold at Rs. 27 per ton, to enable it to compete against ordinary builders' lime, *i.e.*, a ton of cement measures 27 cubic feet. Cost of cement at Rs. 27 per ton is Re. 1 per cubic foot and at Rs. 75 for 225 cubic feet ordinary lime will cost Re. 1 per 3 cubic feet.

Hydraulic lime is much heavier and is measured at 125 cubic feet per 100 maunds, so that for work underground and for hydraulic purposes this lime might be replaced economically by cement.

Theoretically the value of an equal weight of artificial cement is to an equal weight of natural cement (hydraulic lime) as 4 is to 3, so that if hydraulic lime costs Rs. 90 per 100 maunds an artifiicial cement costing anything less than Rs. 120 per 100 maunds is the better value.

In some circumstances, of course, artificial cement cannot be replaced by hydraulic lime.

(2) (*a*) The latest quotations for a large quantity of artificial cement were—

Rs. 37 per ton, Indian cement.
Rs. 57 per ton, British cement.

It would apear from the above that the competition in the cement trade is between local manufacturers and is unaffected by the import trade except where there is prejudice in favour of the imported cement when the matter of price of local cement is not considered.

An unbiased user would always use local cement if its price were, say, 15 per cent. cheaper than British.

(*b*) At a difference of 10 per cent. only the probability is that the British cement would be purchased as freely as local.

(*c*) At 5 per cent. difference British cement would be preferred except by ardent supporters of local industries.

(3) With hydraulic lime at Rs. 90 per 100 maunds cement at Rs. 37 per ton is a trifle high for its economic use in place of the former.

Reduced to Rs. 33 per ton cement is cheaper to use than hydraulic lime.

(4) } We have not up to now had sufficient experience with Indian cement
(5) } to express an opinion.

Witness No. 44.

MESSRS. MARTIN & COMPANY.

WRITTEN.

Replies to questionnaire No. V, dated 29th August 1924.

We have to acknowledge the receipt of your letter No. 741, dated 22nd idem. We have not as yet received a copy of the evidence referred to in your letter, but we are now replying to your questions in *seriatim* in order to save delay.

1. We consider that if the price of cement remains at its present level there will be some increase in its consumption for constructional purposes for the following reasons:—

(*a*) The present low level of cement prices encourages the use of reinforced concrete floors, roofs and partition walls in buildings.

(*b*) With the abnormal increase of the cost of land in important centres, such as Calcutta, Bombay and Madras, it is financially economical to increase the accommodation of a building by the addition of extra stories, both in residential and office areas, by adopting reinforced concrete construction for this purpose. But, the present level of cement prices is ruinous to manufacturers in India and cannot continue for more than a very limited period. We make this statement from our knowledge of the overhead charges of a manufacturing company and our estimate of the likely cost of manufacture under favourable circumstances.

2. (A and B). Any marked increase in the price of cement will, in our opinion, adversely affect its consumption as reinforced concrete work for building purposes will be unable to compete with the use of bricks in lime mortar.

(C) There are certain classes of work in which cement must be used and any advance in price will have no effect.

3. Ordinary buildings for dwelling purposes will be built with brick and lime mortar, and cement, even at its present prices, will be unable to compete with this.

4. We have been using Indian made cement—Katni for the last 8 or 10 years, and Rohtas for nearly two years—and have found no difference whatever in quality when compared with English imported brands.

5. Indian cement does not deteriorate when packed in bags provided proper precautions are taken to prevent exposure to rain. We ourselves have experienced no disadvantages and have received no complaints from Government or public buyers by this method of packing. But, petty bazaar dealers prefer foreign cement packed in wooden casks because this method of packing undoubtedly affords better protection against the inclemency of the weather in transit to mofussil districts.

Witness No. 45.

MESSRS. MACKINTOSH BURN, LD.

WRITTEN.

Letter dated 23rd September 1924, from Messrs. Mackintosh, Burn, Ld., to the Secretary, Indian Engineering Association, Calcutta.

We have carefully perused the report of the Committee of the Association dated 3rd instant with reference to the above subject and beg to reply to the various points on which the Tariff Board require information as per their letter dated 22nd August.

Paragraph 5.

1. Is it likely that, if the price of cement remains at about its present level, there will be a substantial increase in the consumption of cement for constructional purpose? No.

2. What percentage of increase in the present price of cement would be likely to have the effect of—

(a) retarding the growth of consumption;

(b) stopping the growth of consumption altogether;

(c) producing an actual decrease in consumption.

3. Can cement at its present price level be used economically for many purposes to replace lime? No.

If not, at what price would cement begin seriously to compete with lime? At the moment Rs. 18 per ton.

4. Has Indian cement been used for constructional purposes by the engineering firms in India? Has been used by us.

And if so, has its quality been found satisfactory and equal to that of cement imported from Europe? No.

5. Has Indian cement been found liable to deterioration owing to the fact that it is packed in bags and not in barrels? Yes.

And is it likely that on this ground the preference might be given to imported cement even if the price were higher? Yes.

Witness No. 46.

MESSRS. J. C. GAMMON (BOMBAY), LTD.

A.—WRITTEN.

Written statement, dated the 12th September 1924.

We note in the evidence given before your Board that one of the grounds on which the Katni Cement Company claim protection for Indian cement is that they are faced with serious competition from English and German Cement Companies, particularly in the seaports of India. Special reference is made to Bombay.

During the past few years we have perhaps been the largest contractors for cement concrete work in the Bombay district. We beg to inform you that no order whatsoever for English or foreign cement has been placed by us since October 1922, since which date the whole of our work in the Bombay, Karachi and Calcutta districts has been carried out with Indian cement.

सत्यमेव जयते

Statement II.—Further statement submitted by Messrs. J. C. Gammon (Bombay) Limited, dated the 13th October 1924.

We beg to acknowledge receipt of your letters with enclosures Nos. 941 and 942, dated 30th ultimo and return the oral evidence corrected so far as we can. We also enclose you an approximate statement of our cement consumption during the past few years.

2. With reference to the suggestion concerning the use of cement instead of lime and allowing the following Bombay prices for materials delivered into jobs and inclusive of handling charges after delivery (but not labour costs for mixing), *i.e.*—

	Rs.	A.	
Cement	48	0	per ton.
Sand	20	0	per brass.
Lime	45	0	per brass.
Cement mortar 1:8 comes out at . .	45	0	per cent.
Lime mortar 1 : ¾ comes out at . . .	53	8	per cent.
Lime mortar 1:1½ comes out at . .	45	0	per cent.

which correspond with the figures given* of Rs. 21·866 Rs. 28·993 and Rs. 21·130 where materials cost Rs. 40, Rs. 4 and Rs. 30 respectively.

3. As to the success of 1:8 cement mortar used with brick work we would emphasize that especially in the hot weather upcountry very thorough saturation of the bricks would be necessary in order that the cement should have a chance of setting and that we consider it would be very difficult to educate labour and subordinate supervision to this fact—failure to do so would spell failure to get strength from the cement and consequently would cause an undesirable prejudice against this change in material.

सत्यमेव जयते

Enclosure.

Approximate Cement Consumption.

1920	1921	1922	1923	1924	
Tons.	Tons.	Tons.	Tons.	Tons.	
2,500	14,300	5,720	2,600	2,500	Purchased by us.
1,800	300	2,600	7,500	2,000	From clients.

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* In the Indian Cement Company's Statement III.

MESSRS. J. C. GAMMON (BOMBAY), LIMITED.

B.—ORAL.

Oral evidence of Mr. R. P. MEARS, recorded at Bombay on Friday, the 25th September 1924.

President.—You represent Messrs. J. C. Gammon, Limited, I think?

Mr. Mears.—Yes.

President.—I understand that your firm are contractors?

Mr. Mears.—Yes.

President.—Is a large proportion of the work that you undertake building or construction work?

Mr. Mears.—Construction.

President.—I take it that as Bombay is your headquarters, you do more work here than anywhere else?

Mr. Mears.—Yes.

President.—But you have mentioned that you do work in Karachi and Calcutta also?

Mr. Mears.—That is right.

President.—What the proportion of the work your firm is now doing, is done in Bombay?

Mr. Mears.—At present we have far more work in other places than in Bombay.

President.—In the mufassal also?

Mr. Mears.—For the most part in big centres, some in Ceylon, some in Karachi, but up to now of the works completed probably 90 per cent. at least in Bombay.

President.—So that normally a very high proportion of your work is in Bombay, but at the moment it is less than usual?

Mr. Mears.—Yes.

President.—What quantity of cement would you probably use annually upon the amount of work your firm are normally doing? I don't want the exact figures, but it will be useful to get a general idea.

Mr. Mears.—We roughly use one thousand tons a month. Of course, it may vary by even 100 per cent. according to the work involved, and I should not like to make a definite statement on the subject.

President.—I quite understand that. If even you could say that it is from 10,000 to 15,000 or 15,000 to 20,000 tons a year that will serve our purpose.

Mr. Mears.—It would be 1,000 tons a month.

President.—Might it be as high as 20,000 tons in a particular year?

Mr. Mears.—I am afraid I shall have to look up the records to give you a definite answer.*

President.—At any rate 1,000 tons a month may be taken as an approximation?

Mr. Mears.—Yes.

President.—Under normal conditions the greater part of that quantity would be used in Bombay?

Mr. Mears.—Yes.

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* Statement II, enclosure.

President.—How long is it since has your firm been established and working as contractors?

Mr. Mears. Since the end of 1919. I have myself been working as a consumer of cement since 1913 when I was with Messrs. Marsland Price. It was six years after that that I joined Gammon's.

President.—Before the war the firm was not in a large way of business perhaps?

Mr. Mears.—No.

President.—At any rate you personally have had experience of British cement before the war?

Mr. Mears.—Yes.

President.—During the war, I take it, British cement was almost unprocurable?

Mr. Mears.—Yes. For the first two years during the war British cement was insisted on mainly in Government work, and it was only in 1915 that I first came to use Indian cement, but even up to the end of 1916 British cement was still being ordered, and there was enormous prejudice against the Indian cement. I have had tests made of the Bundi cement and "Anchor" cement, which is a British cement—I had been making these tests very carefully, and you will find them interesting—and from the figures you will see that they are something of the same order.

President.—There apparently is very little to choose between them?

Mr. Mears.—Yes.

President.—Since 1916 you have had continuous experience of Indian cement?

Mr. Mears.—Practically, entirely.

President.—You have told us in your letter that, since September 1922, your firm have used nothing except Indian cement?

Mr. Mears.—Nothing, so far as I know, except in one or two cases where it had been strictly specified that British cement must be used.

President.—Therefore you are in a position, as large users who have done a great deal work with Indian cement, to express an opinion?

Mr. Mears.—I think so.

President.—You have told us that these tests of 1916 showed that Indian cement was equal in quality to British cement. Has your experience since then confirmed that opinion?

Mr. Mears.—I should say fully. I think there is very little to choose. The Bundi cement came up to a very high standard almost at once and was particularly reliable; the others have gradually appeared to me to have got up to the same standard.

President.—The cement that comes to Bombay in any large quantities comes either from Bundi, or from Kathiawar or from one of the group of factories near Katni in the Central Provinces?

Mr. Mears.—I think we handle mostly Dwarka and Bundi, but we have had many others like the "Swastika" brand which comes from the Central Provinces.

President.—Have you noticed any difference in quality according to the area from which the cement comes?

Mr. Mears.—No. I think one can safely say that the Indian cement is of a high standard and extraordinarily reliable.

President.—Have you ever found that you have been let down, that you had a bad lot?

Mr. Mears.—We have had some unfortunate experience of that sort, probably due more to cement being damaged in transit rather than to defective manufacture. On one occasion a part of a floor had to be taken out and it was found that the cement was bad. It was a case where we were not responsible as the cement was supplied to us by Government and consequently they accepted the responsibility for the work. That is apparently attributable to something getting mixed in the cement in transit, some foreign material entering and things of that kind.

President.—Have incidents of that kind been numerous?

Mr. Mears.—No. I know of incidents of that kind occurring with British cement also.

President.—I take it that part of the work that you do in Bombay is done on behalf of the Development Department?

Mr. Mears.—That is correct.

President.—Or the Public Works Department and the Municipality?

Mr. Mears.—Yes.

President.—I gathered from evidence that we have received that these departments and public companies have entered into contract with some of the cement companies to obtain their cement from them.

Mr. Mears.—Yes.

President.—In such cases the use of Indian cement would be obligatory under the terms of the contract. and you would have therefore to use the cement supplied by the companies?

Mr. Mears.—Yes.

President.—Supposing you were given a contract by some private consumer for the erection of an important building, and you had a free choice, would you be prepared to give a higher price for Indian cement than for British cement?

Mr. Mears.—I think I should always be inclined to pay about one per cent. more for the British cement. You may call it prejudice; certainly I shall not be justified in doing a thing of that sort from experience, but I am always inclined to consider British somewhat more reliable. It is curious that the most conservative people for sticking to British cement are Indian clients.

President.—That is interesting.

Mr. Mears.—Clients sometimes used to come to us and say "No, I will have British cement." Generally it was the Indian who said so.

President.—It is curious. Supposing that there was a difference of, say, 3 per cent., would you give the preference to Indian cement?

Mr. Mears.—Yes.

President.—So that, as measured by the difference in price, your "prejudice" is a very small one?

Mr. Mears.—Yes.

President.—Take the Indian consumers you were talking of, what difference in price that would overcome their prejudice?

Mr. Mears.—I could not give you an idea of that.

President.—Have you any views on the subject as to the difference in price under the existing state of things which would put Indian and British cement on level terms?

Mr. Mears.—I should say 1 per cent. premium on the British cement.

President.—You think that would be sufficient in the case of consumers generally?

Mr. Mears.—I should imagine so. Indian cement is well established now and is readily obtainable, and the prejudice is going away slowly.

President.—Well, if that be so, it has got to be explained why in 1923-24 as much as 47,000 tons of British cement were imported into Calcutta when the difference in price was a great deal more than 7 per cent.

Mr. Mears.—Calcutta is very much behind Bombay in the use of reinforced concrete. Moreover, they have not got the right quality of sand as in Bombay. That is why there is so much more concrete work in Bombay than in Calcutta.

President.—That is to say, Bombay has made larger use of cement and in consequence has got more accustomed to it, and the prejudice in the natural course has disappeared?

Mr. Mears.—That is what I think.

President.—A good deal of concrete work, as it happens, is going on in the new docks. But there is a difficulty, I understand, about concrete work in Calcutta, that the aggregate for the concrete have got to be brought from a distance, which adds to the cost. Well, now let us put aside for a moment the British cement. You have the older companies in India like the Bundi Cement Company and the Katni Cement Company, and you say these are well-known. Is there any preference amongst users in favour of the well-known brands which the older companies manufacture as compared with the cement of the newer companies?

Mr. Mears.—I should say there is a preference in favour of Bundi cement, because Bundi had made its reputation at the earliest stage.

President.—I see. The thing is that certain brands have got a reputation, and the buyer is confident he will get the result he wants?

Mr. Mears.—Yes. As far as I know, Bundi cement has always come out all right in transit, and certainly in the early days, say, in 1916, we generally got better tests than with Katni.

President.—I noticed from the evidence that the only cement companies who were working somewhere near full capacity last year were the Bundi and Katni Cement Companies. That fact suggests that they were able to sell their cement more easily than the other companies?

Mr. Mears.—Yes. I have often seen Bundi cement specified in contracts even some years ago.

President.—You have told us that, as between Calcutta and Bombay, the prejudice in favour of British cement appears strongest in Calcutta. What about Karachi?

Mr. Mears.—I would not like to make a definite statement as to the degree of prejudice!

President.—I said that, if a difference of one per cent. was the extent of the prejudice, we had to explain why so much British cement was brought to Calcutta, and you suggested that Calcutta possibly is in the same frame of mind now as Bombay was in 1916. Do you think that is the explanation?

Mr. Mears.—Yes.

President.—As between Bombay and Karachi, is the consumer in Karachi as willing as the consumer in Bombay to use Indian cement?

Mr. Mears.—I could not say, because I have not handled the Karachi branch at all.

President.—So far as Bombay itself is concerned, do you think Indian cement is at any disadvantage owing to the fact that it is packed in bags and not in barrels? Supposing you had to buy a large quantity of cement for a big work and you had Indian cement which comes in bags and British cement which comes in barrels, would that affect your decision as to which you were going to use?

Mr. Mears.—Only if I have got a consignment during the monsoon.

President.—Only in the monsoon?

Mr. Mears.—Yes.

President.—Does much cement work go on during the monsoon, or does it come to a standstill?

Mr. Mears.—It goes on pretty well.

President.—So, the method of packing does affect the preference of the consumer?

Mr. Mears.—It would affect it. If we got it in casks at the same price or at a very small excess price we might buy it.

President.—You don't think that it makes much difference in Bombay?

Mr. Mears.—Not much.

President.—I want to ask you about Karachi. It has been suggested that there is an apprehension that cement packed in bags may go wrong in the sea voyage.

Mr. Mears.—It sounds funny in a dry place like Sind. We get very little trouble as a rule through cement going hard.

President.—Only very little?

Mr. Mears.—Yes. It may go hard during the monsoon and sometimes you will have to break it to pieces. It is a sort of initial set. You can frequently break it with your hand. It is just like packed clay, and sometimes you get a too vigilant inspector who rejects it. You only want a knowledge of cement. You may require a heavy blow from a spade to break it up and then if you test it, you will get a perfectly good result.

President.—Supposing the export of Indian cement became a live proposition, and had to be sent a considerable voyage by sea to East Africa or Singapore or somewhere like that, do you think that the method of packing would become of great importance then?

Mr. Mears.—I should imagine that the experience of the exporters in England would be available to them. They always export cement in casks. At Home the English cement is used in bags. Presumably they will get the same experience.

President.—Is it your experience that there has been a great expansion in the use of cement in India in recent years?

Mr. Mears.—Enormous.

President.—What is that chiefly due to?

Mr. Mears.—So much more business: so much more construction done in India.

President.—What kind of work is it?

Mr. Mears.—First of all there is far more reinforced work than there used to be. In the next place there is far more work than there used to be.

President.—Do you anticipate that this growth in consumption will continue?

Mr. Mears.—No. I should not think so, because the amount of business going in constructional line seems to be rather on the decrease than on the increase. There has been an extraordinary boom in Bombay which is at an end.

President.—Is there a good deal less building going on now than there was, say, three years ago?

Mr. Mears.—Yes.

President.—Therefore, looking only to the near future, say, for the next five years, you would not anticipate any considerable increase in consumption?

Mr. Mears.—No, I should anticipate some decrease.

President.—Are you acquainted at all with the up-country market for cement?

Mr. Mears.—No.

President.—That is rather a different thing. I imagine that cement was used very little up-country before the war, and there may be room for expansion there on different grounds.

Mr. Mears.—Their conditions are different. The labour is relatively cheap. Where you have to use 1/10th material of reinforced concrete as against masonry, it may be better to use ten times the quantity of

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masonry. That very often happens in the case of reservoirs and so on. You may build with 1/10th material of concrete, but with your cheap materials on the spot it is sometimes cheaper to do it by the ordinary method which is better understood.

President.—What is the current price for Indian cement in Bombay at present?

Mr. Mears.- Just under Rs. 50.

President.—Take it at Rs. 45. How far do you think that the consumption of cement in Bombay would be affected supposing the price went up as high as Rs. 60?

Mr. Mears.—It would at once decrease the use of concrete to some extent.

President.—Then I take it, as between reinforced concrete construction and other methods of construction, there is no great difference in price. If cement rose by 33 per cent. in price, then the balance might swing over in favour of some other method of construction. Is that a fair way of putting it?

Mr. Mears.—If the price of cement were to rise by 33 per cent. it might reduce the number of concrete jobs by perhaps 10 per cent. or 5 per cent. or something of that sort. As the price rose, in a corresponding proportion would the amount of concrete work done be reduced.

President.—You think, therefore, the consumption of cement at its present rate does depend on the maintenance of a relatively low price?

Mr. Mears.—Yes.

President.—If the price rose substantially, it would be reflected probably in less concrete construction.

Mr. Mears.—I am sure on that point.

President.—One of the things that was suggested to us was that, for certain purposes, cement could be used to replace lime in building. Cement mortar could be used in place of lime mortar. Is that a matter in which you can help us at all?

Mr. Mears.—I don't think I could.

President.—We have received recently from the Indian Cement Company a note on the subject giving their calculations as to what they believe to be feasible. It is worked out with reference to the prices at Delhi, and it is an endeavour to show that, at a certain level of prices, it would be advantageous to use cement in making mortar rather than lime. I do not know whether your firm would be able to express any opinion on what the Cement Company had said.

Mr. Mears.—It is rather difficult. One would at once think of decreasing the amount of material used by decreasing thickness and so on: there you get into a constructional problem. It is not replacing one material by another, because the prices of the two materials are so very divergent. Cement cannot come down to the price of lime. Then again, the price of lime varies in different parts of India.

President.—The suggestion is that, for a mixture of lime and sand in the proportion of 1 to 1½, you could substitute a mixture of cement and sand in the proportion of 1 to 8. That is the basis of their calculations. If you thought that your firm would be able to help us, I should like to send a copy of this note and see what they have to say about it.*

Mr. Mears.—I would be quite pleased to see it.

Mr. Ginwala.—When you say that you use 1,000 tons a month, do you include the cement supplied to you by Government Departments or is it your own?

Mr. Mears.—It would be our own, but it has varied at different times. When we were doing *chawls,* it was nearly all supplied by the Development

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* See Statement II, paras. 2 and 3.

Department. When we were doing the Cotton Depôt, we supplied the cement ourselves. It is rather difficult to say, because I was not handling the cement which was coming in.

Mr. Ginwala.—What are the principal forms of construction you go in for?

Mr. Mears.—Mainly reinforced concrete.

Mr. Ginwala.—That is for building.

Mr. Mears.—Mainly, but we handle all kinds.

Mr. Ginwala.—Do you go in for bridges and things like that?

Mr. Mears.—Yes, and all kinds of construction work.

Mr. Ginwala.—For the Development Department, what do you do?

Mr. Mears.—Mainly *chawls*. Also there is a lot of building work now finishing at Colaba.

Mr. Ginwala.—That, of course, is practically all house-building?

Mr. Mears.—Yes.

Mr. Ginwala.—You don't go in, for instance, for road making with reinforced concrete?

Mr. Mears.—We have got some road making, but not much.

Mr. Ginwala.—Considering Malabar Hill Reservoir and the big goods stations are they all reinforced concrete or are they partially reinforced concrete and partly something else?

Mr. Mears.—The Goods Station is entirely reinforced. The reservoir on the Malabar Hill is plain concrete, lime concrete and masonry and very little reinforced concrete—but quite a lot of cement concrete.

Mr. Ginwala.—What was the roof made of?

Mr. Mears.—The roof was plain cement concrete.

Mr. Ginwala.—What part was reinforced?

Mr. Mears.—Only where there was difficulty of taking up thrusts; otherwise it was plain cement concrete job.

Mr. Ginwala.—Do you do all your reinforced work on the site or do you do it in your works and send it in slabs?

Mr. Mears.—We do it on the site,

Mr. Ginwala.—The whole lot?

Mr. Mears.—Yes.

Mr. Ginwala.—In the case of roads, would it be necessary to do all the work on the site?

Mr. Mears.—We would have to.

Mr. Ginwala.—I want to know whether it would be possible to use cement for road construction in Bombay on a large scale?

Mr. Mears.—To my mind it is the only way to get a decent road.

Mr. Ginwala.—Where has it been put in?

Mr. Mears.—Hornby Road, for instance.

Mr. Ginwala.—Is it made of cement concrete or is it reinforced?

Mr. Mears.—They have got a lot of both reinforced concrete and plain. We have got a job going on in reinforced concrete and to-day I have put in three tenders for plain concrete roads. The Municipality seem to be experimenting very much with both kinds.

Mr. Ginwala.—I take it that, in the case of ordinary plain concrete, you would require some other foundation, stone foundation or some such thing or do you simply lay it on the ground?

Mr. Mears.—We lay it straight on the ground. The ground is prepared—steam-rolled— and the concrete is laid straight on it.

Mr. Ginwala.—In that case in the long run it would be very much cheaper, because it will require no foundation such as you require in the case of ordinary roads. Especially in Bombay you cannot make roads without some sort of foundation.

Mr. Mears.—I should say certainly it would be cheaper.

Mr. Ginwala.—They have no stone setts for roads?

Mr. Mears.—Frere Road is entirely stone setts on concrete.

Mr. Ginwala.—What setts do you use?

Mr. Mears.—Ordinary trap.

Mr. Ginwala.—If India begins to make use of cement more and more for roads, there is a tremendous field. That is why I am asking you.

Mr. Mears.—That is what ought to be done in the interest of Bombay because Frere Road, which used to be so very bad, is now very much better. I think it is entirely due to the fact that they have put 8 or 9 inches of cement concrete under the setts.

President.—Would it amount to this: that, when a concrete road was thoroughly laid down, it would last a great deal longer than the ordinary road and the cost of repairs would come down.

Mr. Mears.—It would never compete at first cost.

President.—I know that. It is the saving on repairs that would justify the initial cost?

Mr. Mears.—Undoubtedly.

Mr. Ginwala.—One of the objections to this form of road making is that it is more difficult to repair. We have had some experience of that in Rangoon. As you know it is very difficult to patch it, and the same thing would, I take it, apply to reinforced concrete. Supposing there is a settlement, it settles down more in one place owing to the soil not being ready or owing to some other defect.

Mr. Mears.—You see a lot of that going on in London where they have got pneumatic tools for getting it out. It would be very difficult to do it by hand labour.

Mr. Ginwala.—Supposing you put up a road in the mufassal where these appliances are not easily available, will not that be a serious disadvantage in any programme of road construction?

Mr. Mears.—I should not think so.

Mr. Ginwala.—What is the total length of roads made of cement here?

Mr. Mears.—I could not tell you. Mr. Annett would know all those things.

Mr. Ginwala.—You definitely express the opinion that for road making it would be a suitable material?

Mr. Mears.—Yes.

Mr. Ginwala.—Would climatic conditions affect the roads?

Mr. Mears.—The climate would not affect the concrete once it has set.

Mr. Ginwala.—With regard to those reinforced buildings: have they been a success in the town?

Mr. Mears.—Quite. A Commission was appointed two years ago to go into the question and the report was very favourable. They investigated all the oldest buildings in Bombay made of reinforced concrete and the report given in was that they were standing very well.

Mr. Ginwala.—What Commission are you referring to?

Mr. Mears.—It was appointed by the Local Government to investigate all the buildings which were as much as 8 years old. Representatives from the Port Trust, the Municipality and local bodies, and one or two people representing Contractors were on that committee, and I was also on. The report got out was distinctly favourable to concrete construction which I believe has been definitely accepted since.

Mr. Ginwala.—Partial reinforcement was in use long ago for floors and things like that.

Mr. Mears.—In Bombay the concrete work is almost as old as in England. A lot of concrete building was done in 1906.

Mr. Ginwala.—They used it chiefly in making floors and they did not make pillars, etc.

Mr. Mears.—Take the case of the Victoria Technical Institute. Those buildings were all reinforced concrete and they were put up in 1906. I can look up a whole list of these. There is the Telegraph office close there: it was put up in 1910. It developed extraordinarily quickly in Bombay.

Mr. Ginwala.—Recently it has been said that some building done in reinforced concrete had come to grief in Bombay?

Mr. Mears.—I do not think so: we did not come across a single failure.

Mr. Ginwala.—But very recently was there not some building that collapsed?

Mr. Mears.—One or two collapsed during construction, but I know of no concrete building that collapsed after construction.

Mr. Ginwala.—I heard of some building which collapsed owing to some defect in the work.

Mr. Mears.—I have been Home recently and so I have not heard of it.

Mr. Ginwala.—What about the Y. W. C. A. building?

Mr. Mears.—It is first of all not of reinforced concrete. Next, it has been in a bad condition all the time I have been in Bombay, and I knew it was going to give trouble and it is now being reconstructed. It was entirely constructed with rolled steel joists and lime.

President.—Cement was not used?

Mr. Mears.—No.

Mr. Ginwala.—It is useful to know that. Some comment was made that that was an instance in which reinforced concrete did not do well, and I am glad that cement had not anything to do with it.

Mr. Mears.—It was want of cement entirely.

Mr. Ginwala.—Judging from these facts that you have stated just now the use of cement ought to increase. Of course trade depression affects everything, but taking all things together its use ought to increase.

Mr. Mears.—It ought to increase. There is yet a big field practically untouched, but as the building operations having been abnormal in recent years, it is not possible to see so much increased use in Bombay now.

Mr. Ginwala.—Is it not used for bridge-making in Bombay?

Mr. Mears.—All the bridges—railway bridges and so on—are designed in steel in London.

Mr. Ginwala.—And overhead bridges for railways?

Mr. Mears.—Thana bridge, for instance, is concrete very largely, but outside that there are not very many bridges in Bombay. As there are no rivers; they are only creeks.

Mr. Ginwala.—In what other forms than building bridges and roads can cement be used? Don't they use it for road pavements?

Mr. Mears.—Not far enough.

Mr. Ginwala.—In pavements they do not use slabs?

Mr. Mears.—Most of them are reinforced slabs. Bombay has not gone in very largely for that: it might do so.

Mr. Ginwala.—One advantage you have is that you do not require so much supervision on the site if it were slabs.

Mr. Mears.—If they were slabs already made?

Mr. Ginwala.—Is that a feasible proposition?

Mr. Mears.—It is always easier to transport loose materials than finished articles.

Mr. Ginwala.—Would you have used Indian cement in the beginning if there had been a big difference in price between the Indian and the British cement?

Mr. Mears.—I can only say that I came across it first in 1915 with a considerable prejudice against it, and I am certainly fully convinced that Bundi cement is particularly good.

President.—Still it took about two years?

Mr. Mears.—It took about two years with the consumer and with the ordinary public it would take longer.

Mr. Ginwala.—Are your clients chiefly individual Indians or big corporations?

Mr. Mears.—When we measure jobs in money it would be big corporations, but if it is only a questions of numbers of clients and jobs it would be individuals.

Mr. Ginwala.—I do not understand this explanation that you gave about Calcutta. Does cement require much more sand than lime?

Mr. Mears.—The results are more dependent on the quality of material in cement concrete work than is the case with lime mortar.

Mr. Ginwala.—Here do you use stone or what?

Mr. Mears.—Stone or shingle. Very good sand is found round the harbour and particularly at Mumlova.

Mr. Ginwala.—In Calcutta they will have to use broken brick concrete?

Mr. Mears.—Yes.

Mr. Ginwala.—That could not be more expensive than lime and mortar?

Mr. Mears.—Cement would be more expensive?

Mr. Ginwala.—So far as the quantities of other materials are concerned, broken bricks are naturally cheaper than stone?

Mr. Mears.—With reference to the thickness you will have to increase the amount of material going into the job. It means more cement and more sand. If cement was confined to those places where sand or shingle is available it can be used.

Mr. Ginwala.—Take Burma for instance. We have very little stone there, and for even big buildings in Rangoon they have got to use broken brick concrete, so that Calcutta should not be at a greater disadvantage than Rangoon where conditions are similar.

Mr. Mears.—Calcutta has not used concrete work to the extent Bombay has, because other materials are expensive. Suitable stone and suitable sand are very expensive.

Mr. Ginwala.—But then they use a considerable amount of cement. They seem to use a good bit. They import about 40,000 tons and probably they may be using as much of Indian cement.

Mr. Mears.—I do not know what they use it for, but there is nothing there like the completed concrete construction that exists here.

Mr. Ginwala.—They do not go in for complete reinforced buildings?

Mr. Mears.—Prices are all a bit unfavourable. Here in Bombay for most of the works you can compete with the other firms of construction because stone and sand are relatively cheap. Reinforced concrete in Calcutta will be more expensive.

Mr. Ginwala.—It is a little difficult to work out because they will have to use more bricks always. If they use reinforced material it is a different thing, but I do not think they will use it for walls and pillars?

Mr. Mears.—Flooring consists in Calcutta almost entirely steel joists and brick arching. Bricks are cheaper in Calcutta. That is why practically they are lost entirely to cement.

Mr. Ginwala.—But that does not explain why they should use British cement. That is what I want to know?

Mr. Mears.—They have not handled as much cement and they are not as familiar with it as the ordinary public here, and consequently they may be inclined to insist on British cement because they have not learnt to realise how good Indian cement is.

Mr. Ginwala.—They would not be at any great disadvantage because cement is packed in bags. It is just the same thing with you?

Mr. Mears.—Yes.

Mr. Ginwala.—Did you get much cement from the Dwarka Cement Works for the Development Department? It must have come by sea?

Mr. Mears.—Yes.

Mr. Ginwala.—Did you find that the sea had done much damage?

Mr. Mears.—No. There was the Colaba job. I had stored enormous quantity of cement before the monsoon last year. I cannot say that I have had cement from Dwarka during the rains, and then it comes by train. So far as boat journey goes there appears to be no disadvantage whatsoever.

Mr. Ginwala.—What is the distance by sea?

Mr. Mears.—From Dwarka it is 300 miles.

Mr. Ginwala.—It is probably about 2 days' journey?

Mr. Mears.—Yes.

Mr. Ginwala.—You did not find the cement any the worse for it?

Mr. Mears. It was extraordinarily good.

Mr. Ginwala.—The reason I am asking is that Rangoon is 700 miles from Calcutta and Rangoon has a greater prejudice against the Indian cement.

Mr. Mears.—Porbunder cement has been coming by sea for years, and there is nothing against Dwarka cement because it is coming by sea.

Mr. Ginwala.—There is a better service between Calcutta and Rangoon than between Dwarka and Bombay.

Mr. Mears.—A short time ago Dwarka was giving extraordinarily good tests.

Mr. Ginwala.—Do you keep large stocks of cement or do you get cement as you require it?

Mr. Mears.—We generally get as we require it.

Mr. Ginwala.—So you cannot tell us whether it deteriorates when kept in stock?

Mr. Mears.—I had cement in stock in different times up to two years.

Mr. Ginwala.—In bags?

Mr. Mears.—I do not think so. That was some years ago, and I do not know whether it was Indian or British cement.

Mr. Ginwala.—If cement had to come by sea they have to provide against the monsoon. The question is whether it would keep against deterioration.

Mr. Mears.—One would be perfectly prepared to say that it would keep easily for two years. We are getting our supplies before the monsoon and they are perfectly good.

Mr. Ginwala.—It has got to remain on the site for some time, and before that in your godown?

Mr. Mears.—We take it straight to the site.

Mr. Ginwala. You take it practically from the station or from the dock?

Mr. Mears.—There is a general rule that cement should be used as quickly as possibile and it is an economy to take it straight to the job. That is one of the advantages that Indian cement has conferred on us in that it is readily obtainable.

President.—Except in the monsoon it is not necessary to store much?

Mr. Mears.—No.

Mr. Ginwala.—In the monsoon if it comes by train I take it that it will come in a reasonably dry state?

Mr. Mears.—We have not had much trouble that way. You may get it up to your godown and there were some instances where cement was received in a covered wagon, and while raining we could not unload it.

Mr. Ginwala.—In that case do you get delivery in your works at the risk of the manufacturer, or at your own risk? What is the practice?

Mr. Mears.—I am not at all sure. I think you will find it very seldom that we get cement during the monsoon. In fact we generally get it beforehand. I think consignments are at the risk of the manufacturer up to the station, and then you have got to make your own *bandobast* from the station to the works.

Mr. Ginwala.—Do you import much cement?

Mr. Mears.—Practically nothing.

Mr. Kale.—Do you construct many buildings which are used for residential purposes in Bombay?

Mr. Mears.—Yes.

Mr. Kale.—Other than *chawls*?

Mr. Mears.—Yes.

Mr. Kale.—I thought that reinforced concrete buildings presented rather a gloomy and clumsy appearances so that people would not use concrete for residential purposes.

Mr. Mears.—That is a matter of opinion. Perhaps reinforced concrete can be made all right for residential purposes. There are godowns, warehouses and such things where appearance is not considered, but we have many blocks done for residential purposes.

Mr. Kale.—Of course it is a question of taste: it is not a question of engineering. I am asking the question from an aesthetic point of view because I wanted to know whether construction for residential purposes is likely to increase or not.

Mr. Mears.—If cement was pushed in the manufacture of ornaments such as balustrades, parapets, flower pots and things of that kind which could be made in cement concrete if an industry of that kind was developed. It is done in Italy a lot. No doubt it can be done in Bombay.

Mr. Kale.—It was not attempted so far in Bombay?

Mr. Mears.—Only to a limited extent. You can see it on Malabar Hill in the form of ornamental compound walls and things of that sort.

Mr. Kale.—So if there were any prejudice against cement concrete on account of these things it could be overcome?

Mr. Mears.—We would certainly do so, if an industry were started to specialise in that kind of ornamentation.

Mr. Kale.—Will it not be comparatively more costly?

Mr. Mears.—It will be very much cheaper. As a rule per cubic foot you could do any ornamental reinforced concrete very much cheaper than ornamental stone work. We have been trying to get ornamental work made and trying to get it accepted, but so far it is very difficult to push on. There is undoubtedly a big field for development.

Mr. Kale.—But what about building construction in mufassal towns? There will be greater difficulty to push it?

Mr. Mears.—Undoubtedly. Of course skilled labour and supervision will be more difficult to obtain there.

Mr. Kale.—This is one of the obstacles in the way of progress?

Mr. Mears.—Not exactly that. After all, it requires far less skill to make a flower pot of concrete than it requires to chip it out of a stone. Yet there are many masons who can make things out of stone extraordinarily well, and out of concrete very badly.

Mr. Kale.—Apart from that, in a road made of cement concrete you will normally require expert supervision which would not be available just at the moment?

Mr. Mears.—There again to my mind too much importance is placed on expert supervision. People do not realise that half an hour of hot sun spoils the cement. What it required is water and shade, that is what it needs.

Mr. Kale.—Will the ordinary engineering staff available to municipal and local bodies suffice for the purpose?

Mr. Mears.—Ordinary engineers who supervise building works in the mufassal can easily take it up. What it needs is that the mistry in the mufassal being his own employer should learn how to deal with his material, and treat it sympathetically. That is all he is required to do. It requires no University training or anything like that.

Mr. Kale.—With regard to roads though the initial cost of these cement works would be heavy, you think that in the long run it will be cheaper and perhaps some of the mufassal Municipalities may make experiments and have roads made of cement?

Mr. Mears.—Yes, cement gives an easy means of making a very good surface.

Mr. Kale.—The condition of roads in almost all our towns is extremely bad—I put it very mildly—and any improvement will be welcome, and if the Municipalities have their roads made in that way, you think it would be of advantage?

Mr. Mears.—There, of course, the whole thing depends on whether people water their roads or allow it to dry in the sun before it has set. If you allow it to dry in the sun it will be spoiled.

Mr. Kale.—Do you mean the use of water when it is made?

Mr. Mears.—After it is made it should be regularly kept in water. When a floor is constructed, *mutti bunds* are put on it in squares of about 5 cubic feet then about 2 inches of water is kept there so as not to allow the sun to spoil it, and then you can guarantee the quality. But if you allow the water to dry up the cement will fail to set up and you lose the whole value of the work.

Mr. Kale.—Once the road is built there is no further need of water?

Mr. Mears.—Once it is set there is no further trouble.

Mr. Kale.—Mr. Ginwala has already asked you about the difficulty of repairs. Perhaps that difficulty may be serious in smaller towns and mufassal Municipalities because, for one reason, or another roads are dug up and there are big holes in the road. Will there be any serious difficulty?

Mr. Mears.—Not at all. I think the only difficulty is that you have got a very hard substance which you will have to chip out, but the repair work would be very easy. You will have to chip out the work pretty rough and join the new and old work with cement mortar after thoroughly cleaning out the old work. It is nothing difficult; it only requires a little thoroughness.

President.—With regard to what Professor Kale was asking you about the use of reinforced concrete for residential buildings, is it not the case that people are making use of coloured reinforced concrete which has quite a clean effect?

Mr. Mears.—Yes, but the difficulty is to get a good mistry who can do the work himself. The small man has not yet taken to it.

Witness No. 47.

Messrs. S. OPPENHEIMER & COMPANY, Limited, Rangoon.

WRITTEN.

Representation, dated the 13th October 1924.

With reference to Government of India, Commerce Department, No. 38-T., dated the 10th April 1924, notifying that the Tariff Board will examine applications of certain named industries for protection, I have been requested to address you on the subject of cement.

My Association is very strongly opposed to increased duties in any shape or form and consider that the present very high rates of duty already in force are detrimental to trade and hinder the development of the province. The serious backward condition of Burma is admitted, and very heavy expenditure is immediately necessary if communications are to be opened up and the natural resources of the province are to be developed. High duties can only retard development.

It is estimated that Burma used 30,000 tons of Portland cement in 1923, mostly from the United Kingdom. To increase the duty from Rs. 9 to Rs. 25 per ton places an additional burden of approximately five lakhs annually upon this province. No cement is manufactured in Burma, and is not likely to be manufactured, hence the increased duty will be solely for the benefit of a small group of manufacturers in Northern India with no corresponding advantages to this province.

Practically no interest has been taken up to date by Indian manufacturers in the Burma market, and in fact I consider the bag-form of packing at present used by Indian manufacturers to be absolutely unsuitable for this market. Considering the many times cement has to be handled before reaching the actual consumer, I am of opinion that no form of packing is suitable, other than strong paper-lined dove-tailed wooden casks such as are used by British makers. Even with this form of packing many engineers stipulate that cement shall not have been in the country more than three months, as in the damp climate of Lower Burma, cement is liable to serious deterioration unless suitably packed. Regarding the quality of Indian cement, I have little information, but I very much doubt whether Indian cement has reached the high standard of quality produced to-day by British manufacturers.

I wish to enter a very strong protest against the proposal to increase the duty upon imported cement, as I consider such increase to be against the best interests of this province.

Witness No. 48.

R. G. MENON, Esq.

A.—WRITTEN.

Statement I.—Original representation dated 6th July, 1924.

My experience in the cement industry dates from the beginning of the year 1914, when the first few pioneer factories were just set in motion, and I remained in the field till the end of the year 1922 which saw a number of factories in the course of construction or operation. During the nine years under review the industry advanced in rapid strides for the main reason that the war favoured such enterprises at least for the time being. Early in the beginning of the war soon after the first few factories were set in motion it became more or less evident that foreign competition would not be a serious factor for a considerable time to come. This unfortunately encouraged the company promotion mania which resulted in the creation of so many factories with a total capacity far in excess of the demands in India. It would not have required superhuman foresight to imagine what would be the result of producing about 700,000 tons of cement in a country which consumed only about 200,000 tons in the year preceding the war. Those who were responsible for this did not seem to have thought over the law of demand and supply in their headlong rush. The certain disaster which was bound to follow the reckless disregard of natural laws came in after the war much sooner than was expected by the wise world. Between the year 1919 and 1921 about seven new factories representing a total productive capacity of 400,000 tons a year were in the course of construction, while most of the old plants were being extended to increase production. By the year 1921 the course of post-war event indicated precipitous tendencies in every field of trade and industry and the cement industry in India could be distinctly heard moaning in distress. Most of the factories had to cut down production or shut down their plants at intervals.

Foreign competition was supposed to be the cause of all the miseries and the manufacturers unanimously asked for protection. But those who claimed protection differed in their opinion as to the elements of the competition and they were not quite sure of the amount of protection required to check that competition. Mr. R. H. Cherry in his oral evidence before the Fiscal Commission in 1922, had no idea of the actual works cost of cement in England, but he believed that "The cement industry can get along provided there is straightforward competition." But he complained of the "enormous drop in the sea freight and the increase in the Indian Railway freight," and he added "If the Railway companies were to give us reasonable rates there would be no need for people to buy imported cement." Sir Vithaldas Thackersay thought "The cement industry will not need large protection permanently against foreign competition" but he advocated "an ordinary tariff. . . . against imported cement to prevent temporary dumping by foreign manufacturers." Sir Vithaldas was of opinion that dumping was possible because of the disorganisation of exchange. Answering a pointed question of Mr. Mant—"You are not asking for protection there?"—Sir Vithaldas replied "No" with equal definiteness. Disagreement and confusion mark the whole pile of evidence before the Fiscal Commission. But still the cry for protection was instinctively kept up till the Tariff Board was obliged to take up the investigation of the claim.

The questionnaire which the Board has issued will doubtless elicit a wide range of informations; but it cannot be called exhaustive owing to the fact that it does not deal fully with the organisation of the functions of a factory and the methods of management. Consequently a good deal of informations which could have been got in this direction have been lost to the Board. I know that there are various kinds of managements prevalent in the different factories in India. There are managing agents who pride in the fact that their factory is managed after English, American, or German system, whatever the case may be. I would not be surprised to hear that some "experts" have adopted Turkish or Belgian system also. I would have very liked to explain the interesting fads of these "systems" in detail and show how much they cost to the shareholders and to the country. But as mine would be the only evidence on the subject I am likely to be taken a prejudiced man, and the evidence may not be verified. I would however touch upon them as occasions arise in the course of the replies to the questions I am dealing below.

Question No. 31.—On this point I have read many evidences before various public commissions, and almost all of them, with a few exceptions, seemed to take the Indian labourer no better than the lazy buffalo which has to be kicked and beaten to perform its work. I have found even the wild Kurds of Persia far better than the unrare descriptions of the Indian labourer.

The situation of the cement factories being mostly in country sides, labourers of the respective localities cannot be expected to know anything of factory work. But every class of labour I have met with could be efficiently trained up to the ordinary routine operations within two or three months at the most. I know the statement would take away the breath of "experts." It is but natural. "Put a workman on his honour and he will not diss-appoint you" is a lesson I have learned by experience. I have applied it even to the primitive folks of Chotanagpur and to the notorious Vagheer outlaws of Kathiwar, and seldom have I been disappointed.

Question No. 32.— In the beginning of the industry the employment of skilled labour from abroad was necessary. But after about ten years of its life, the industry can very well do without even a single imported man. This applies to all classes of people including mangers, engineers, chemists, burners, and millers.

Question No. 34.—But unfortunately the management of cement factories have fallen into hands who would not eliminate the European elements in their respective factories for various reasons. Prestige was the reason advanced by one Indian factory for the adoption of this policy which disqualified even a M. A., B. Sc. (Indian) of four years' experience for a responsible position which had then fallen vacant. The matter was noticed at the time in a leader in The Bombay Chronicle. This spirit which is still prevalent is not conducive to the substitution of Indian for imported labour. And the possibility of Indians completely replacing Europeans seems to be as distant as the day when we can skate on the Ganges in the month of June.

There are, of course, facilities for Indian workmen to acquire training in skilled work. But the facilities are not given to them purposely. The European skilled labourers jealously keep the secrets of their trade as far as they can; but usually within a short time after their arrival in this country they succumb to the influences which gradually infect them. They become "expert sahebs" and feel it below the dignity of their clan to do anything but to give hukums to the native labourer, who thus quickly acquire the necessary practical knowledge and skill in the work entrusted to him. A burner, for instance, is quite an ordinary labourer trained up to the particular work of calcining cement. For an ordinary man of average intelligence not more than a month or two is required to learn to perform his duties satisfactorily. One of my own assistants was actually given charge of the kiln after about fifteen days of training and he continued to work very well till he left the place. There are two factories producing the best cements in India, where burners are all Indians. And there is another group of factories controlled by one agency which religiously preserves its European burners. The very mention of the name of some of its brands of cements is enough for a dealer to lose his customers. The tremendous differences between the wages of Indian and European burners is no incentive to Indianisation. Any sensible man having any knowledge of cement industry would consider it madness to import on

Rs. 1,200 a month a man who can hardly write his language beyond signing his own signature. And if this is madness it is difficult to appropriately qualify the employment on Rs. 2,000 a month a man who never before saw a cement factory. Another instance is the recognition of a younger brother's qualification for the works-managership of a big cement factory the managing concern of which happened to be under the management of the elder brother. Instances of these kinds can be multiplied to show that Indianisation is not an easy task.

Apprenticeship, in the sense in which it is understood in western countries, is not known in Indian cement works. But if any boy wants to get admission as an apprentice he must take good care not to talk of his university degrees or other recognised qualifications. I have myself heard it said that graduates have been refused admission in certain factories for the simple reason that they were graduates and so cannot be bluffed by tall talks of the mysteries of the trade. The bosses would soon be correctly gauged by graduates and their prestige would be at stake. There is a widespread impression that the educated boys of the country are averse to manual exertions. Unfortunately it is true in certain localities. But of all the men who worked above me, with me, or under me—including graduates—I never saw one who was not prepared to put his hand to any work circumstances demanded. I have seen them handling spades and hammers, pushing waggons, crushing samples, and even chivalrously shouldering an overloaded cooly's burden all this voluntarily and cheerfully. These very men would have probably resented these works under compulsion of a haughty boss. It all depends on how the men are handled. Educated men will always appreciate tact and curtesy, but these qualities are not likely to be lavishly exercised by those whose supreme consideration is prestige. And they naturally select crude materials who would not resent crude treatments.

Question No. 39 has been partly answered by the reply to No. 31, I have no experience in western countries to compare the efficiency of Indian workmen in India and European workmen in their countries. But if the efficiency of the parties working side by side in India, is taken for comparison, the Indian is as good as the European labourer. I make the statement deliberately and challenge any one to prove the contrary.

Question No. 40. I do not know of any factory which has undertaken a definite programme of labour housing or welfare work. Some of the labourers depending upon the factory build their own huts around the works, while clerks, foremen, and other middle class employees are provided more or less habitable accommodation. Beyond this employers do not seem to be very anxious to give practical proof of their much trumpetted concern for their workmen.

Question Nos. 66 and 67 have been fully answered in the foregoing remarks. I am aware that statements of the kind I have made above do not often come before a board or commission of enquiry, and whenever they do come they are likely to be dismissed as unimportant or unworthy serious consideration. And yet they are unquestionable facts which profoundly affect the industry and cannot be ignored without doing harm to it. They indicate a state of affairs which are certainly not beyond improvement. In fact my experience drives me to the conclusion that many of the factories in India would have been in a far better position to-day if they were managed on sounder basis. Protection would not have been necessary for the industry against normal and straightforward competition. I believe that cement industry in India is favourably situated to produce cement more economically than in any other country of importance of which I have been informed. The industry had almost six years of monopoly in Indian markets, and this long period ought to have been more than sufficient to establish it firmly and to evolve the most suitable and economical methods of management. Instead, the protection afforded by the war was abused, and indulgent and lavish mismanagements were tolerated to continue. There was neither method nor order, and thus the most injurious traditions were established within the factories and among the workmen, which made it difficult to affect the improvements which the advent of peace and foreign competition demanded.

What guarantee is there that protection will not perpetuate these chaotic and inefficient methods of management? Past experience decidedly favour the opinion that unless severe foreign competitions compel reason or at least awaken the instinct of self-preservation the present state is bound to continue, and protection will only help to delay reforms. I am not against protecting the industry against unfair methods of competition. But I do believe that protection would not be justifiable either in the interests of the industry in its present condition or in the interests of the consumers. While the public has a duty to protect this industry of great national importance, it has also the right to see that it is not taxed to fill the pockets of the manufacturers and to feed the vanity and prestige of their incompetent "experts." And likewise, the manufacturers who have the right to expect reasonable support from the country, have also a duty to her which they have not shown any anxiety to perform.

India has no reason to hope that her manufacturing class will be better than their compeers in other protectionist countries. They may take the fullest advantage of a protective duty regardless of the consumers. The cement factories in India are controlled by a few but mighty groups of Bombay financiers who have never been known to be over-zealous of the interests of the country. A protective duty may bring them all together, and in that event all the curses of trusts and combine will soon be evident.

India can at present produce double the quantity of cement required for her domestic consumption. She cannot dispose of her surplus in the competitive markets abroad when she is unable to hold her own markets. A protective duty will doubtless give relief; the manufacturers may maintain their prices at the highest possible level and fleece the consumers in order to provide means for the establishment of an export trade for their surplus. Or if that is not possible it will be easy to cut down production, which, realising higher prices, may not be improfitable. In either case the domestic consumer will be unjustly and mercilessly exploited. And the Government itself will in course of time find them too strong and influential for them to affect any modification in the interests of the consumers.

It is well known how much these trusts and combines can corrupt the public life of a country. Tatas were never approached by politicians for contributions to party funds. But recently Pandit Motilal Nehru is reported to have expected from them handsome subscriptions to the Swarajya fund. Whatever that may mean, the Pandit and his overwhelming number of Swarajist followers voted for the steel tariff bill in the Assembly which eventually passed it into an act, for the consequences of which, let us hope, none will have to deplore.

So far as I know the companies themselves do not claim protection on the ground of high cost of production. They say in effect that their cost of production is not higher than those of foreign cement and they base their claim on the base of unfair competition by freight cutting, subsidy, etc. They feel foreign competition only in the ports. Under the circumstances the most logical course to adopt would be to concentrate attention on the freight question in regard to this particular industry and to find out some reasonable means of overcoming this difficulty—even at the expense of the tax-payer. The concession will of course be limited to those areas, namely the sea ports, where foreign competition exists. Some scheme developed along these lines will have much of the advantages of free trade and few of the evils of protection. I believe the tax-payer will have better advantage under this scheme than under the high protection claimed for the industry. The manufacturers also will be compelled to introduce economical and efficient methods of management and to keep abreast of the latest scientific developments with a view to apply them sensibly to their own concerns at least for the sake of their existence.

सत्यमेव जयते

Statement II.—Letter, dated the 26th July 1924, from Mr. R. G. Menon, Calcutta, forwarding copy of his letter to Press.

The enclosed cutting containing my letter to the Press on the subject of protection for cement industry may be taken as a continuation of my letter to the Board, dated the 6th instant.

If the Board desire to examine me I am willing to appear before them whenever I am called.

To the Editor, "FORWARD."

The Indian Tariff Board has just published the evidence tendered by cement manufacturers claiming protection for the industry. The success of the Tata's claim has much encouraged the present claimants to ask for fifty per cent. duty on imported cements. This preposterous claim is sought to be justified on the ground that the Indian consumers do not buy Indian cements inspite of the fact that the Indian products are far cheaper than, and equal in quality to, any imported cement, of which many thousands of tons are imported to this country every year for Indian consumption. The manufacturers have, therefore, decided that the only way out of the difficulty is to teach the Indian a little of patriotism and "swadeshi" spirit and for this he must be made to pay.

During the Steel Tariff Bill debate the Legislative Assembly evinced keen enthusiasm for the measure and they lent their whole-hearted support to pass it with just a bit of advice to the Tatas to bear in mind how they deal with Indian interests both inside and outside the works, and the consumers were asked to bear a bit of sacrifice for the sake of the industry. But before another call is made on the country to pay for the protection of the cement industry, it must be made known to every one concerned that the industry exists not only for the benefit of the few capitalists but for the country at large.

In the light of my personal experience in the cement industry for about ten years, I do not think some of the companies have adequately and correctly represented the working of their factories. Some have made misstatements in the evidence calculated to create an impression very prejudicial to the interests of the Indian workman. For instance, in answer to Question 34 the Indian Cement Company replies "The factory was started with two imported experts one as Manager and the other Chemist and Assistant Manager but no skilled labour. These two officials trained both Engineers and Chemists besides all other skilled labour required in the process of manufacture." During about four years of service in the Company I could find no opportunity even to suspect that the Manager and the assistant, besides being inscrutable chemists, had also a well developed faculty of engineering. After reading this evidence I now recall and thoroughly understand why four first class engineers (Indians) were sent out of the factory one after the other in about three years time. All of them had to go away because of the intolerable schooling under these experts. And by the time their most praiseworthy mission of educating the Indians was found hopeless, two mighty engines and boilers had to be torn away and replaced by a new one at a cost which would have killed any factory without the financial strength of the Tatas behind it.

I ask the man responsible for the statement to let the public know the engineering qualifications of these experts.

The fact is this kind of insidious suggestions are instilled into responsible men with a deliberate purpose. And the mischief it is capable of doing may be seen in some of the figures published in the report. The Indian Cement Company is one of the oldest companies manufacturing cement. They started operations in 1914, and they had, like other early factories, virtual protection for about five years of the war. In this period they do not seem to have succeeded to train the necessary number of men to run their works efficiently as is evident from their works cost of production which for 1923 stands at the high figure of Rs. 52 per ton, while other companies hardly a year o could show far better results in their first year of operation. The gener service, supervision, and local office charges of the Indian Cement Compai are the highest of all the figures on this item supplied to the Tariff Boar Their factory labour charges also are the highest recorded. I am not singlii out any factory for criticism; there are others also who think that yea must elapse before this schooling is over. Six of the eight companies' eviden state that foreign burners are necessary for their works. The exceptio are the Bundi Cement Company, and the Punjab Cement Company, who sa "No imported labourers are employed by us although the factory is workir at very nearly fullest capacity." And yet Bundi Cement is second to r cement manufactured in the world. Is it that Bundi was lucky to get th right men for their works, is it that the class of men working in the factories are more intelligent than others; or is it that the manag ment of these works are abler and more sensible than the rest?

Personally I would suggest the last question for serious consideratio Labour in India is cheap, intelligent and easily trained good engineers a not too difficult to find. Graduates with about two years of experience ca control the chemical processes. The difficulty does not lie in these, but i the selection of the right man for the position of the works manager. I is absolutely necessary for a man who wants to be successful to keep himse above the petty partisan quarrels and frictions in the factory, and abov the temptations of vanity which brief authority stirs up in small mer Katni, for instance, was fortunate in having a man of this type, and in year or two of its work the product of the factory established its reputatio The initial stages passed off without troubles. It is impossible to reduc to actual figures the losses sustained by those factories who have not bee fortunate to get men of the right type for their works. But it is m emphatic opinion and I believe that those who have cement experienc will agree with me, that under men of higher standard most of the factorie in India would have been in a far better position to-day.

As it is, protection can only help to continue the existing evils in th works. It is likely to tend to perpetuate the inefficient methods of management wherever it exists. Hard competition alone can compel the manufacturers to seek out better means of production. I know it is goin hard already with some of the factories. The Dwarka Cement Compan seems to be already panting for breath; they write "As the case is urgen we shall be obliged by your letting us know at an early date the decisio which the Government may have arrived at in this connection."

We may once more repeat here that relief is urgently necessary in th case of this industry and if consideration is postponed damaging result might ensue. That is really a pitiable condition, but the remedy does no lie in sitting tight and crying for protection, importing fresh consignment of experts or in tolerating lavish methods early introduced into the factory

It is unfair to ask the consumer to shoulder the burden of protectio and let the foolish game continue at his expense. When the manufacturer have done all that they can to improve the conditions inside the factories it will be time then to approach the country for protection, if protection be then necessary.